500 Grand Ave. Project

CEQA Analysis

Prepared for:

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

Prepared By:

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1944 Embarcadero
Oakland, CA 94606

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I. PROJECT CHARACTERISTICS

1. **Project Title:**
   500 Grand Ave.

2. **Lead Agency Name and Address:**
   City of Oakland
   Bureau of Planning
   250 Frank H. Ogawa Plaza, Suite 2114
   Oakland, CA 94612

3. **Contact Person and Phone Number:**
   Peterson Vollmann, Planner III
   (510) 238-6167
   250 Frank H. Ogawa Plaza, Suite 2114
   Oakland, CA 94612
   pvollmann@oaklandnet.com

4. **Project Location:**
   500 Grand Ave.
   Assessor's Parcel Nos. APNs 10-780-15-8, 10-780-15-7

5. **Project Sponsor's Name and Address:**
   Patrick Ellwood
   Ellwood Commercial Real Estate
   1345 Grand Avenue
   Piedmont, CA 94610

6. **Existing General Plan Designations:**
   Neighborhood Center Mixed Use

7. **Existing Zoning:**
   CN-2/S-12
   Height limit: 45ft

8. **Requested Permits:**
   See Project Approvals in the Project Description, below.

II. EXECUTIVE SUMMARY

The project applicant, Ellwood Commercial Real Estate, is proposing the redevelopment of two adjoining parcels in the Lakeshore/Adams Point neighborhood of the City of Oakland, about 200 feet north of the northeastern tip of Lake Merritt. The proposed redevelopment project is located on a roughly trapezoidal parcel of land, approximately 0.331 acre (14,308 square feet) in size. The project proposes to combine two parcels (APNs 10-780-15-8 and 10-780-15-7) with the respective addresses of 500 Grand Avenue and 401-403 Burk St. The parcels are currently developed with a surface parking lot and an existing two-story office building, which will be demolished.

The Applicant proposes redevelopment of the subject property with a single, mixed-use commercial and residential building. Ground floor development is planned to include 2,997 sf of retail along Grand Avenue, space for building services, a lobby for the apartments above, and a parking garage with 45 puzzle lift parking spaces and 2 accessible parking spaces. The second through partial-sixth floors will contain 40 apartment units, including 19 one-bedroom units and 21 two-bedroom units, with a podium-level open courtyard on the eastern side of the second floor. The proposed building height is 65' to the roof at the corner of Grand and Euclid, sloping down to 43´-6" at the northeast corner along Burk Street. No subgrade structures are planned other than utilities. An emergency exit stairway will be located in the southeastern corner of the building; the design and construction of the stairway will be open to ambient air on one side. The building footprint will overlay the entire surface of the property (13,767 sf).

This California Environmental Quality Act (CEQA) Analysis evaluates the 500 Grand Ave. Project (the Project). Specifically, the Project is considered an urban infill development project. This analysis uses CEQA streamlining and/or tiering provisions under CEQA Guidelines Section Section 15183 and Section 15183.3 to tier from the program-level analyses completed in the City of Oakland General Plan (General Plan) Land Use and Transportation Element (LUTE)[1] and LUTE Environmental Impact Report (EIR) (1998),[2] the General Plan 2007-2014 Housing Element[3] and EIR (2010)[4], and the 2015-2023 Housing Element[5] and Addendum (2014),[6]—collectively referred to herein as the Program EIRs—that analyzed environmental impacts associated with adoption and implementation of the Housing Element of the General Plan.

[1] City of Oakland, 1998. *General Plan*, Land Use and Transportation Element.
[2] City of Oakland, 1998. Oakland General Plan Land Use and Transportation Element EIR.
[3] City of Oakland, 2010. *General Plan*, 2007-2014 Housing Element.
[4] City of Oakland, 2010. City of Oakland 2007-2014 Housing Element EIR.
[5] City of Oakland, 2014. *General Plan*, 2015-2023 Housing Element.
[6] City of Oakland, 2014. CEQA Addendum for City of Oakland Housing Element (2015-2023).

III. BACKGROUND

The following describes the program EIRs that constitute the previous CEQA documents considered in this CEQA Analysis. Each of the following documents is hereby incorporated by reference and can be obtained from the City of Oakland Bureau of Planning at 250 Frank H. Ogawa Plaza, Suite 2114, Oakland, California 94612, and at http://www2.oaklandnet.com/Government/o/PBN/OurServices/Application/EIR/index. htm.

Land Use and Transportation Element EIR

The City certified the EIR for its General Plan LUTE in 1998. The LUTE identifies policies to guide land use changes in the City and sets forth an action program to implement the land use policy through development controls and other strategies. The 1998 LUTE EIR is designated a "Program EIR" under CEQA Guidelines Section 15168. As such, subsequent activities under the LUTE are subject to requirements under each of the aforementioned CEQA Sections, which are described further in Section IV. The Project is within the Central/Chinatown Planning Area as described in the LUTE.

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

Environmental Effects Summary – 1998 LUTE EIR

The 1998 LUTE EIR (including its Initial Study Checklist) determined that development consistent with the LUTE would result in impacts that would be reduced to a less-than-significant level with the implementation of mitigation measures and/or SCAs (described in Section IV): aesthetics (views, architectural compatibility and shadow only); air quality (construction dust [including PM_{10}] and emissions, odors); cultural resources (except as noted below as less than significant); hazards and hazardous materials; land use (use and density incompatibilities); noise (use and density incompatibilities, including from transit/transportation improvements); population and housing (induced growth, policy consistency/clean air plan); public services (except as noted below as significant)[7]; and transportation/circulation (intersection operations).

Less-than-significant impacts were identified for the following resources in the 1998 LUTE EIR and Initial Study: aesthetics (scenic resources, light and glare); air quality (clean air plan consistency, roadway emissions, energy use emissions, local/regional climate change); biological resources; cultural resources (historic context/settings, architectural compatibility); energy; geology and seismicity; hydrology and water quality; land use (conflicts in mixed use projects and near transit); noise (roadway noise citywide, multifamily near transportation/transit improvements); population and housing (exceeding household projections, housing displacement from industrial encroachment); public services (water demand, wastewater flows,

[7] The 1998 LUTE EIR addressed effects on solid waste demand and infrastructure facilities for water, sanitary sewer and stormwater drainage under Public Services.

stormwater quality, parks services); and transportation/circulation (transit demand). No impacts were identified for agricultural or forestry resources and mineral resources.

Significant unavoidable impacts were identified for the following environmental resources in the 1998 LUTE EIR: air quality (regional emissions); public services (fire safety); transportation/circulation (roadway segment operations: Grand Avenue between Harrison St. and I-580); and policy consistency (Clean Air Plan). Due to the potential for significant unavoidable impacts, a Statement of Overriding Considerations was adopted as part of the City's approvals.

Oakland Housing Element Update EIR and Addendum

The City has twice amended its General Plan to adopt updates to its Housing Element. It certified a 2010 EIR for the 2007-2014 Housing Element, and a 2014 Addendum to the 2010 EIR for the 2015-2023 Housing Element. The Housing Element identifies the City's current and Projected housing needs, and sets goals, policies, and programs to address those needs, as specified by the state's Regional Housing Needs Allocation (RHNA) process. A portion of the Project site—the parcel currently at 500 Grand Ave (APN 010-0780-015-08), is identified as a Housing Opportunity Site under the Housing Element. Therefore the Project would contribute to the total number of housing units needed in the City of Oakland to meet its RHNA target.

Applicable mitigation measures and SCAs identified in the 2014 Addendum to the 2010 EIR are considered in the analysis of the residential components of the 500 Grand Ave. Project included in this document. The 2010 Housing Element Update EIR was designated a "Program EIR" under CEQA Guidelines Sections 15168. As such, subsequent activities under the Housing Element that involve housing are subject to mitigation measures and SCAs identified in the 2010 HE EIR. Applicable mitigation measures and SCAs identified in the 2010 Housing Element EIR are considered in the analysis in this document.

Environmental Effects Summary – 2010 Housing Element and 2014 Addendum

The 2010 Housing Element Update EIR (including its Initial Study) and 2014 EIR Addendum determined that housing developed pursuant to the Housing Element, which would include the Project site, would result in impacts that would be reduced to a less-than-significant level with the implementation of mitigation measures and/or SCAs: aesthetics (visual character/quality and light/glare only); air quality (except as noted below); biological resources; cultural resources; geology and soils; greenhouse gas emissions; hazards and hazardous materials (except as noted below, and no impacts regarding airport/airstrip hazards and emergency routes); hydrology and water quality (except as noted below); noise; public services (police and fire only); and utilities and service systems (except as noted below).

Less-than-significant impacts were identified for the following resources in the Housing Element EIR and Addendum: hazards and hazardous materials (emergency plans and risk via transport/disposal); hydrology and water quality (flooding/flood flows, and inundation by seiche, tsunami or mudflow); land use (except no impact regarding community division or conservation plans); population and housing (except no impact regarding growth inducement);

public services and recreation (except as noted above, and no impact regarding new recreation facilities); and utilities and service systems (landfill, solid waste, and energy capacity only, and no impact regarding energy standards). No impacts were identified for agricultural or forestry resources, and mineral resources.

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

Standard Conditions of Approval (SCAs)

The City established its SCAs and Uniformly Applied Development Standards in 2008, and they have since been amended and revised several times.[8] The City's SCAs are incorporated into new and changed Projects as conditions of approval regardless of a Project's environmental determination. The SCAs incorporate policies and standards from various adopted plans, policies, and ordinances (such as the Oakland Planning and Municipal Codes, Oakland Creek Protection Ordinance, Stormwater Water Management and Discharge Control Ordinance, Oakland Protected Trees Ordinance, Oakland Grading Regulations, National Pollutant Discharge Elimination System (NPDES) permit requirements, Housing Element-related mitigation measures, California Building Code and Uniform Fire Code, among others), which have been found to substantially mitigate environmental effects. The SCAs are adopted as requirements of an individual project when it is approved by the City and are designed to, and will, substantially mitigate environmental effects.

Note that the SCAs included in this document are referred to using an abbreviation for the environmental topic area and are numbered sequentially for each topic area—i.e., **SCA-AIR-1**, **SCA-AIR-2**, etc. The SCA title is also provided—i.e., **SCA-AIR-1: Construction-Related Air Pollution (Dust and Equipment Emissions)**.

Consistent with the requirements of CEQA, a determination of whether the Project would have a significant impact must occur prior to approval of the Project. Where applicable, SCAs have been identified that will mitigate such impacts and will be incorporated into the Project. In some instances, exactly how the SCAs identified will be achieved awaits completion of future studies, an approach that is legally permissible where SCAs 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 Project commits to developing measures that comply with the requirements and criteria identified.

[8] A revised set of SCAs was published by the City of Oakland on July 22, 2015.

IV. PURPOSE AND SUMMARY OF THIS DOCUMENT

The purpose of this document is to provide required CEQA compliance for the proposed 500 Grand Ave. Project. Applicable CEQA sections are described below, each of which separately and independently provides a basis for CEQA compliance.

1. **Project Consistent with a Community Plan or Zoning.** Public Resources Code Section 21083.3 and 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 project, has been addressed as a significant effect in the prior EIR, or can be substantially mitigated by the imposition of uniformly applied development policies or standards…, then an EIR need not be prepared for the project solely on the basis of that impact."

   The analysis in the Program EIRs—the 1998 LUTE EIR, the 2010 Housing Element Update EIR and its 2014 Addendum—are applicable to the 500 Grand Ave. Project and provide the basis for use of the Community Plan consistency provisions of CEQA.

2. **Qualified Infill Streamlining.** 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.

   The analysis in the Program EIRs—the 1998 LUTE EIR and, for the residential components of the 500 Grand Ave. Project, the 2010 Housing Element Update EIR and its 2014 Addendum—are applicable to the 500 Grand Ave. Project and are the previous CEQA documents providing the basis for use of the streamlined environmental review pursuant tor CEQA Guidelines Section 15183.3.

3. **Program EIRs.** CEQA Guidelines Section 15168 (program EIRs) provides that program EIRs in can be used in support of streamlining and/or tiering provisions under CEQA. Section

15168 defines a "program EIR" as an EIR prepared on a series of actions that can be characterized as one large project and are related geographically or by other shared characteristics. Section 15168 also states that "subsequent activities in the program EIR must be examined in light of the program EIR to determine whether an additional environmental document must be prepared." Section 15168(c) states, "If the agency finds that pursuant to CEQA Guidelines Section 15162, no new effects could occur or no new mitigation measures would be required, the agency can approve the activity as being within the scope of the project covered by the program EIR and no new environmental document would be required."

This CEQA Analysis for the Project evaluates the specific environmental effects of the Project and whether such impacts were adequately covered by the relevant program EIRs such that these provisions of CEQA apply. The analysis incorporates by reference the information contained in the Housing Element of the General Plan. The Project is legally required to incorporate and/or comply with the applicable requirements of the mitigation measures and SCAs identified in the Housing Element EIR; therefore, the measures and SCAs are assumed to be included as part of the Project. See Attachment A for the full text of applicable SCAs included in this CEQA Analysis. (Note that this is not an exhaustive list of all SCAs that may be required by the City for the Project).

500 Grand Ave. Project CEQA Compliance

The Project satisfies each of the aforementioned CEQA provisions, as summarized below.

- **Community Plan Exemption:** When development proposals are brought before the City, the staff and decision-makers use the General Plan (including the Housing Element) as a guide for Project review. Projects are evaluated for consistency with the intent of General Plan policies and conformance with development regulations. The analyses performed for the program EIRs were intended to expedite the processing of future projects that are consistent with the General Plan. As detailed below in Attachment B, the Project is permitted in the zoning district where the Project site is located (CN-2/S-12) and consistent with the bulk, density, and land use standards envisioned in the General Plan and the Planning Code; the Project designates 12.5% of its units for low-income residents, which qualifies it for housing density bonuses and incentives per Tables 17.107.01and 17.107.05 of the Planning Code. Connected to the density bonus for affordable housing, the applicant has requested a concession to the height limit and a waiver of the visitor parking development standard as permitted by Planning Code Section 17.107.095. This is detailed further in Attachment B: Project Consistency.

  This CEQA Analysis (including attachments) concludes that the 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 Program EIRs; or (3) were previously identified as significant but later determined as having a more severe adverse impact than that discussed in the program EIRs. Detailed findings regarding the Project's consistency with the General Plan (including the Housing Element) are discussed below. Therefore, consistent with CEQA Guidelines

Section 15183, this CEQA Analysis satisfies the requirements for a community plan exemption.

- **Qualified Infill Streamlining:** The analysis conducted and presented in this CEQA Analysis indicates that the Project is eligible for CEQA streamlining as a qualified infill project, pursuant to CEQA Guidelines Section 15183.3. The infill eligibility criteria are evaluated and Project-specific findings are provided in Attachment B.
- **Program EIRs:** The 500 Grand Ave. Project is consistent with the land uses identified for the area in the Housing Element 2015-23 of the General Plan and analyzed in the 2010 EIR and the 2015 Addendum. The analysis in the Housing Element EIR and in this CEQA Analysis demonstrates that the 500 Grand Ave. Project would not result in substantial changes or involve new information that would warrant preparation of a subsequent EIR, per CEQA Guidelines Section 15162. Therefore, the Project meets the criteria of CEQA Guidelines Section 15168(c)(2), such that no new EIR is required.

Examination of the analysis, findings, and conclusions of the prior CEQA document, as summarized in the analysis below, indicates that these prior CEQA documents adequately analyzed the potential environmental impacts associated with the Project. The streamlining and/or tiering provisions of CEQA apply to the Project. Therefore, no further review or analysis is required.

SCAs identified in the program EIRs that would apply to the 500 Grand Ave. Project are listed in Attachment A. Because the SCAs are mandatory City requirements, the impact analysis for the Project assumes that they will be imposed and implemented, which the Project sponsor has agreed to do or ensure as part of the Project. If this CEQA Analysis or its attachments inaccurately identifies or fails to list a mitigation measure or SCA, the applicability of that mitigation measure or SCA to the Project is not affected. Most of the SCAs that are identified for the 500 Grand Ave. Project were also identified in the 2010 Oakland Housing Element EIR and 2014 Addendum; the 1998 LUTE EIR was developed prior to the City's application of SCAs.

V. PROJECT DESCRIPTION

This section describes the proposed 500 Grand Ave. Project (the Project) evaluated in this CEQA Analysis and includes a description of the Project site, existing site conditions, the proposed development, and the required Project approvals.

Project Setting

The Project is located on a roughly trapezoidal parcel of land, approximately 0.331 acre (14,300 square feet) in size, about 200 feet north of the northeastern tip of Lake Merritt (Figures 1 and 2). The Project proposes to combine two parcels (APNs 10-780-15-8 and 10-780-15-7) with the respective addresses of 500 Grand Avenue, and 401-403 Burk St. A retaining wall extends the length and width of the 500 Grand Avenue property, just inside the northern and eastern property boundaries.

The Project site is located on a lot that slopes gently south towards Lake Merritt, starting approximately 30 feet above mean sea level (msl) on the northern boundary and sloping to 17 feet above msl on the southern boundary (13´slope over grade across 120´). It is located on the northern side of Grand Avenue, the eastern side of Euclid Avenue and the southern side of Burk Street.

Historically, the site was developed with a service station from as early as 1946 until 1991. Facilities associated with that prior station included a station building with three service bays. The service bays housed a sump and two hydraulic hoists. Additionally, three 10,000-gallon gasoline underground storage tanks (USTs), one 500-gallon waste oil UST, two fuel dispenser islands and associated product piping were present. The service station structures, including documented utility lines beneath the site, were removed and the station demolished in 1992. The site was a vacant until the current parking lot was paved in the mid-1990s. The building at 401-403 Burk St. is a two-story structure occupied by several small commercial operations.

Regional access is provided by Interstate 580 (I-580), with Exit 21B located 0.25 miles from the site. I-580 connects to I-980 and Highway 24, approximately 1.4 miles from the site. The site is served by Alameda-Contra Costa Transit (AC Transit) bus routes 57, 12, 26, and the Transbay NL, each of which has stops within 0.25 mile of the Project site.

Existing Conditions and Surrounding Land Uses

The parcels are currently developed with a surface parking lot (500 Grand) and an existing two-story commercial building (403 Burk Street).

Across the adjoining streets, the property is bound by residential developments to the north, open space and Lake Merritt to the south, commercial and mixed use (commercial/residential) developments to the west, and residential and mixed use (commercial/residential) developments to the east. More specific development and uses immediately adjacent and within the same block as the Project site can be described as follows:

- The block of Grand Avenue from MacArthur Blvd to Euclid Ave. (on which the Project is the westernmost site) is mixed use, with ground floor commercial (office and retail) and one or two stories of residential above.
- The adjacent property just east of the Project site, 520-522 Grand Ave, is a Craftsman Revival house, built in 1915 and designed by Julia Morgan. It has been designated by the Oakland Cultural Heritage Survey (OCHS) as a local historic property, with a survey rating of B+/1+. It has been rated as "appears to be eligible" for the National Register of Historic Places, individually and as a contributor the the Lake Merritt District, which has been rated an Area of Primary Importance (API) by the OCHS. The property is now in use as a 3-story office building,
- Euclid St, as it continues north of the Project site, consists of older multi-story homes, built as early as the 1920's. The nearby residential neighborhood has been rated by the OCHS as an Area of Secondary Importance (ASI).
- The block of Grand Ave. west of the Project site is also mixed commercial. A 2-story financial services office sits on the corner, the rest of the block is dominated by the AveVista Apartments, which provides 68 units of affordable housing built in partnership with the Oakland Housing Authority. The ground floor includes 3,000 square feet of neighborhood-serving commercial-retail space and resident parking, with an additional floor of parking below grade.
- Burk Street forms the northern boundary of the Project, and extends east. It contains a mix of single and multi-family (up to 4-story) residences.

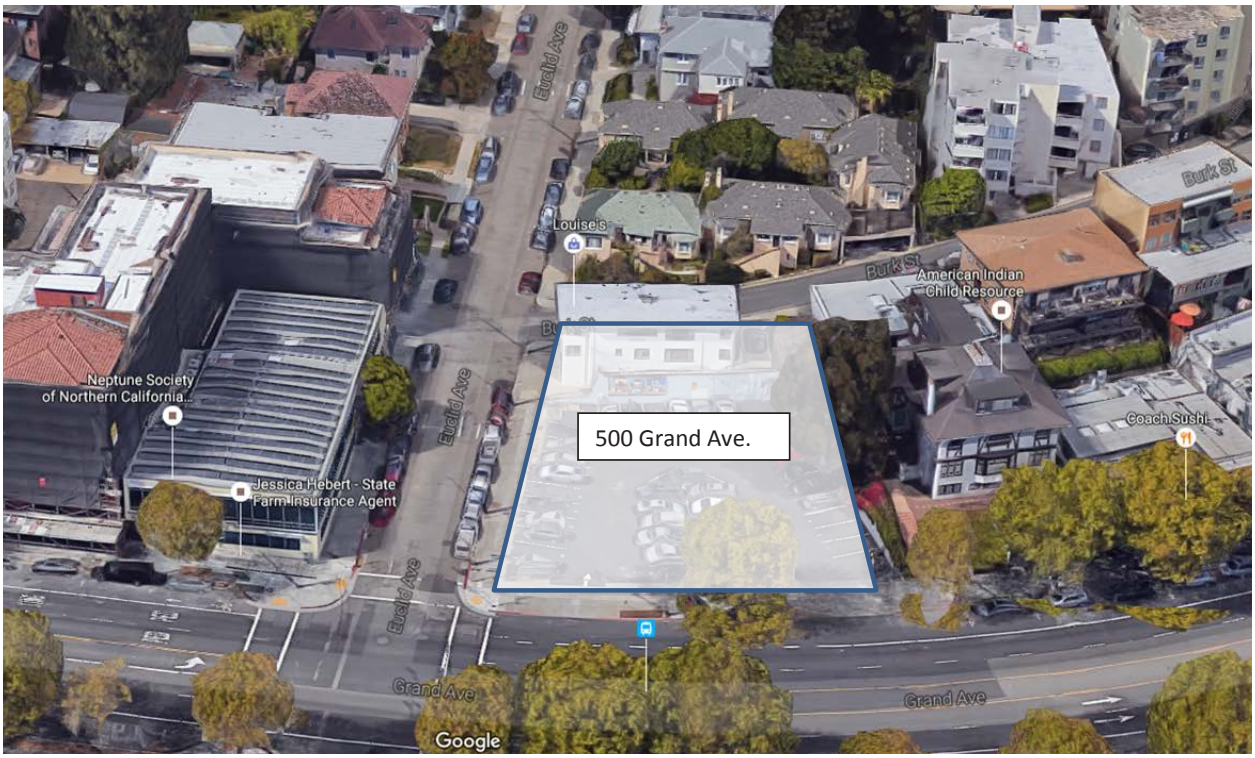
Parcel APN 10-780-15-8 of the Project site (the current parking lot) is located within the Lake Merritt Historic District (Area of Primary Importance (API)) including being located across Grand Avenue from the Lake Merritt Necklace of Lights, which is an Oakland Landmark and directly adjacent to the Morse House (522 Grand Avenue) which is a contributor to the API. Neither the surface parking lot portion of the Project site nor the existing two-story commercial building (403 Burk Street) are Potentially Designated Historic Properties.

General Plan and Zoning Designations

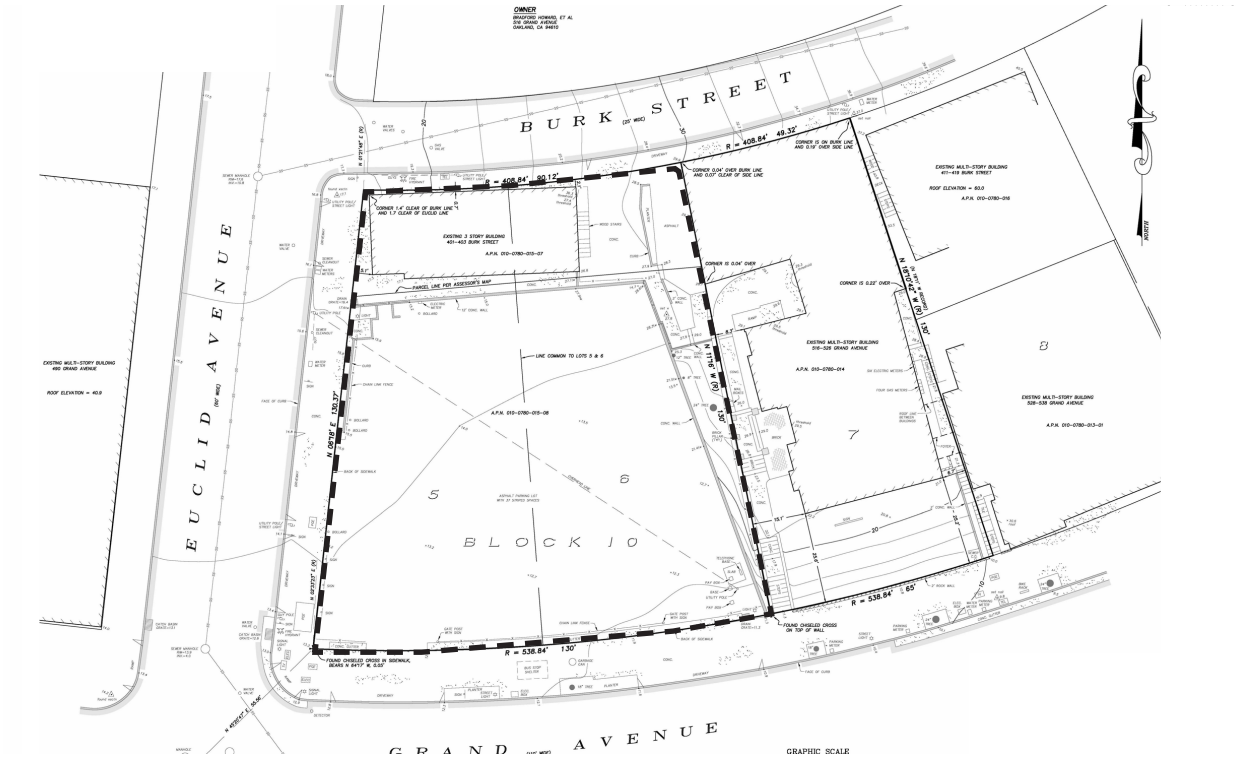
The Project site's General Plan designation is Neighborhood Center Mixed Use (CN) (Figure 3). The intent of the CN classification is to enhance the character of established neighborhood commercial centers that have a compact, vibrant pedestrian environment. The centers are typically characterized by smaller scale, pedestrian-oriented, continuous and active store fronts with opportunities for comparison shopping. The Zoning Designation is CN-2/S-12 (Figure 4). The S-12 Zone is intended to create, preserve, and enhance areas with high concentrations of Residential Facilities, to ensure that adequate off-street parking is provided for those facilities, and to maximize the general availability of on-street parking, and is typically appropriate in high density residential neighborhoods, adjacent commercial areas, and other neighborhoods where high concentrations of Residential Facilities may contribute to on-street parking congestion. The Project site was designated a Housing Opportunity Site in the 2007-2014 Housing Element, and this designation was carried forward to the 2015-2023 Housing Element Update.

Figure 1
General Location

Source: GoogleEarth



Project Vicinity



Project Site

Figure 2
Project Vicinity and Site

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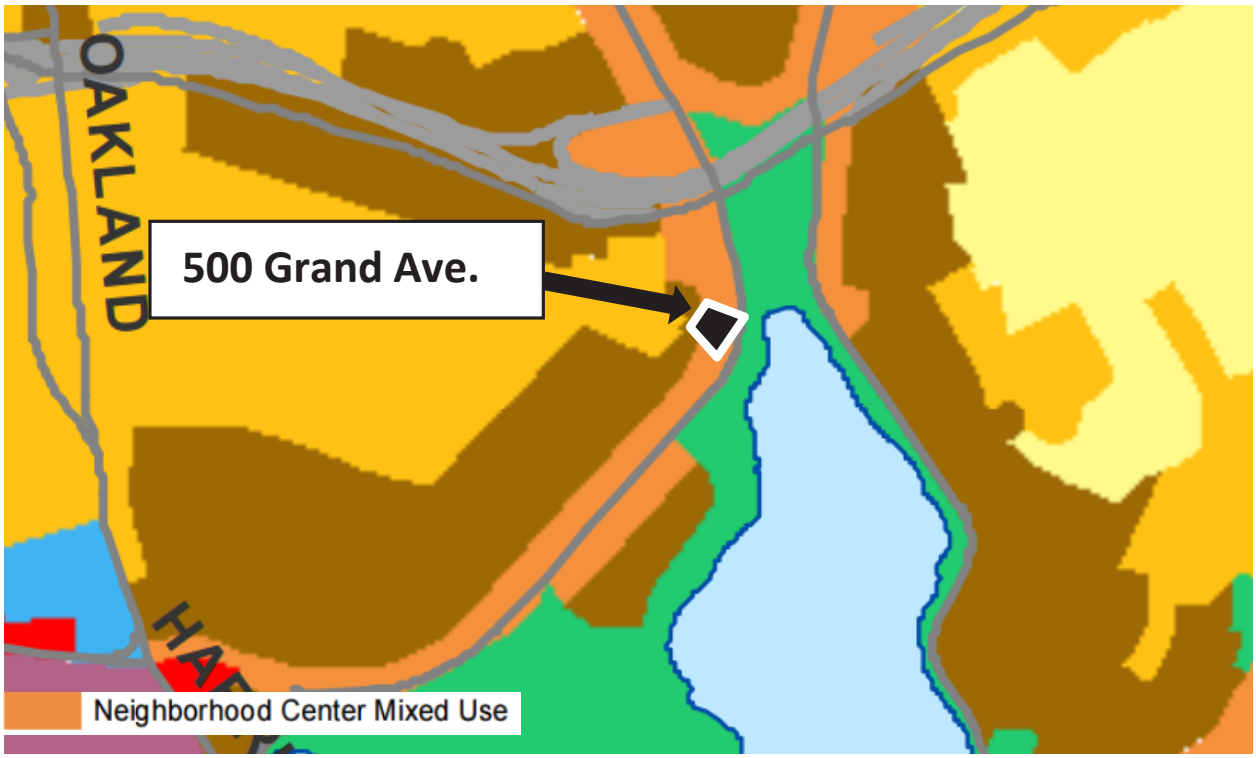
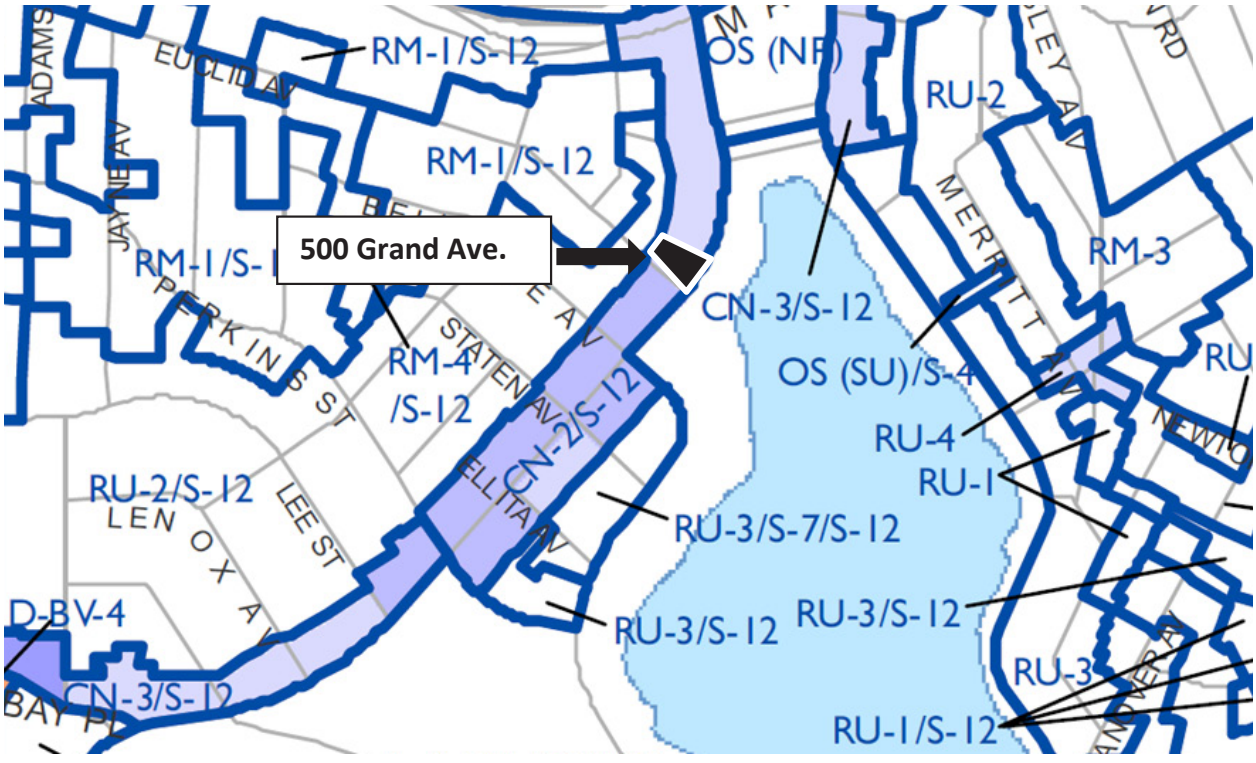


City of Oakland General Plan Land Use Diagram



City of Oakland Zoning Map

Figure 3
General Plan and Zoning

Source: City of Oakland

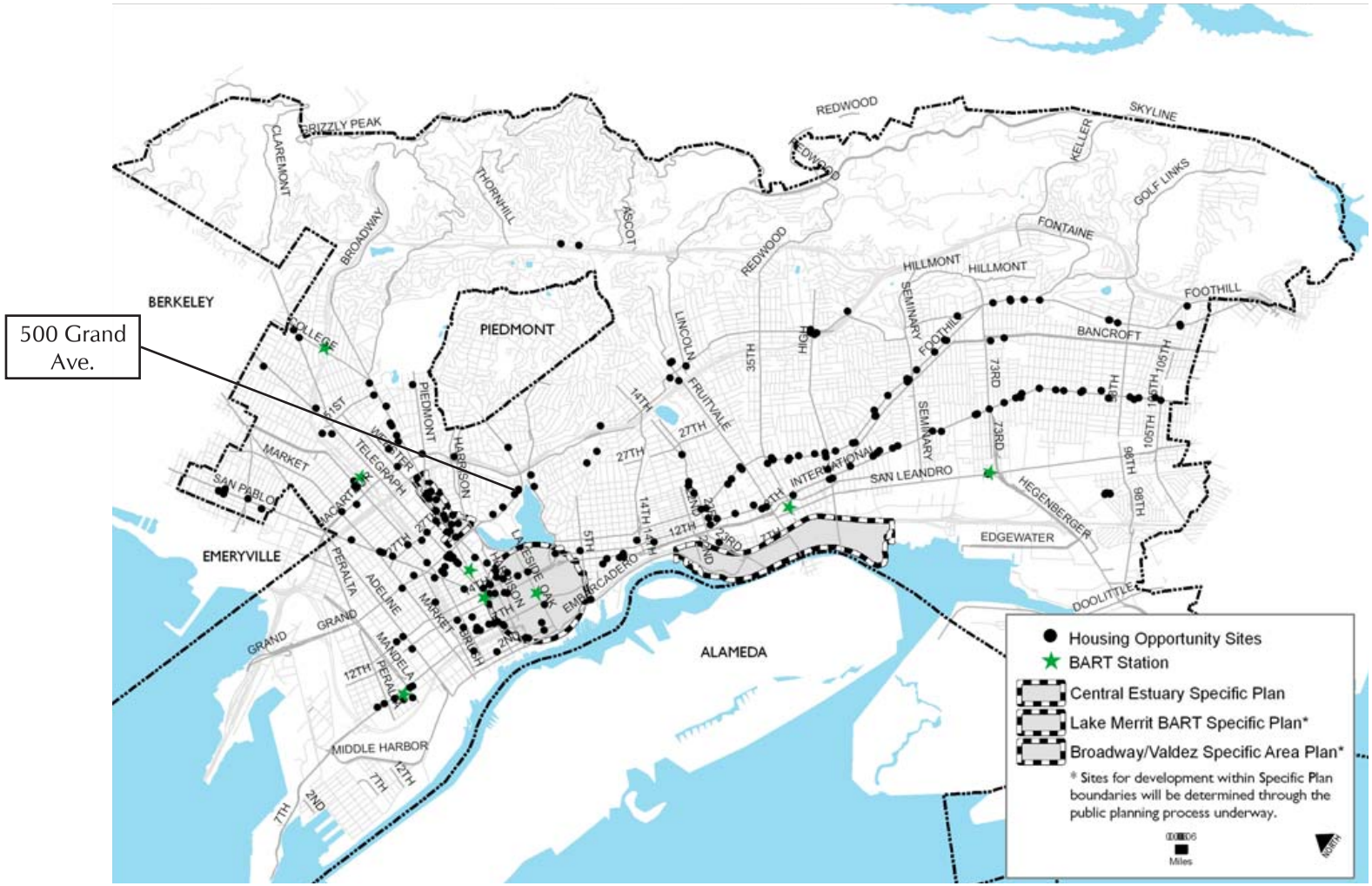


Figure 4
Housing Element Opportunity Sites

Source: City of Oakland Housing Element, 2010

A lobby, accessed from Euclid Ave, would provide pedestrian access to the residential uses on the site. Vehicular access to the site is proposed from a new driveway on Euclid Street with access to the ground-level parking. The single elevator, one enclosed staircase adjacent to the elevator, an external open-air staircase located in the southeast corner of the site, and two staircases will provide access to the upper floors containing residential units. There would be entrances to ground floor retail facing Grand Avenue, as well as an entrance on Euclid to commercial space envisionsed as a potential food/restaurant use, with potential open-air seating.

Four additional street trees are proposed along Grand and five (5) along Euclid Ave (all London Plane Trees). These will add to the two existing London Plane trees on Grand Ave. Three (3) existing trees between 522 Grand and the Project site will be removed: one each of acacia (8" DBH), ash (12" DBH), and eucalyptus (24" DBH). The ash tree is protected under Chapter 12.36 of the Oakland Municipal Code, therefore a tree removal permit would be required.

Project Construction

The Project would be constructed over approximately 24 months and is anticipated to start in 2017 or 2018. Construction activities would consist of demolition of the existing building and surface parking lot, limited excavation and grading, foundation construction, and construction of the building and finishing interiors. Soil management during construction would include precautions taken to limit risks to human health and the environment from identified chemicals during intrusive activities at the site. These precautions are identified in a Site Management Plan (SMP) prepared for the Alameda County Department of Environmental Health (ACDEH),[9] which is included as Attachment D.

Demolition and grading are anticipated to occur over the course of one month. Grading is expected to be limited to surface preparation, utility connections and limited excavations for the foundation, footings and utility services, as no basement or sub-grade parking structure is proposed. The site would be excavated to approximately one (1) foot below grade over the majority of the site, and up to 14 feet below grade along Burk Street. Approximately 1,530 cubic yards of soil will be excavated to facilitate the construction of the foundation, and disposed of at an offsite permitted landfill. During the site grading process it is anticipated that approximately 75 cubic yards of petroleum contaminated soils in excess of commercial environmental screening levels will be removed from the property pursuant to the SMP approved by ACDEH.

Base rock will be imported to the site, but no soil will be imported. Groundwater has been encountered at the bottom of the slope along Grand Avenue, approximately five (5) feet below existing ground surface during the 2016 supplemental investigation.[10] All groundwater monitoring wells at the Site have been abandoned, so static water levels are not available. Previous studies have indicated the gradient to be toward the southeast and water levels have been observed to fluctuate 2.5 to 3 feet. Dewatering is not anticipated to be required during

[9] Site Management Plan, 500 Grand Avenue, prepared by The Source Group, Inc. July 15, 2016.
[10] Supplemental Investigation Findings and Conclusions 2016, prepared by The Source Group, Inc. May 17, 2016.

construction. The Project would have a shallow foundation system and conventional spread footings with slab-on-grade or mat foundation. No pile driving would be required.

Typical equipment used during construction would include an excavator, skid-steer loader, backhoe, trencher, crane, rough terrain forklift, paver, and paving equipment. Staging would primarily occur within the Project site, except in certain instances, such as deliveries or removal of large quantities of material, when parking lanes on one or more of the street frontages may be temporarily closed.

Depending on the construction phase, the number of on-site construction workers could range from approximately 12 to 35 workers per day. The maximum number of workers would be present during framing, rough-in, and interior finish, as well as the exterior work during the building construction phase. The minimum number of workers would be present during grading, excavation, and site preparation.

Project Approvals

The Project requires the following discretionary actions/approvals, including without limitation:

Actions by the City of Oakland

- Planning Director – Regular Design Review, Affordable Housing Density Bonus (8 units) with Height Limit Concession and Waiver of Development Stadard for Visitor Parking, CEQA determination.
- Building Bureau – Building permit.
- Other City Permits – Grading permit, encroachment permit and other related onsite and offsite work 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) –Waste Discharge Requirements or NPDES permit
- East Bay Municipal Utility District (EBMUD) – Approval of new service requests and water meter installation.
- Alameda County Department of Health Care Services Agency (ACHSA) – Approval of Removal Action Completion Report ("RACR"), documenting that standards set forth in the approved SMP have been satisfied.

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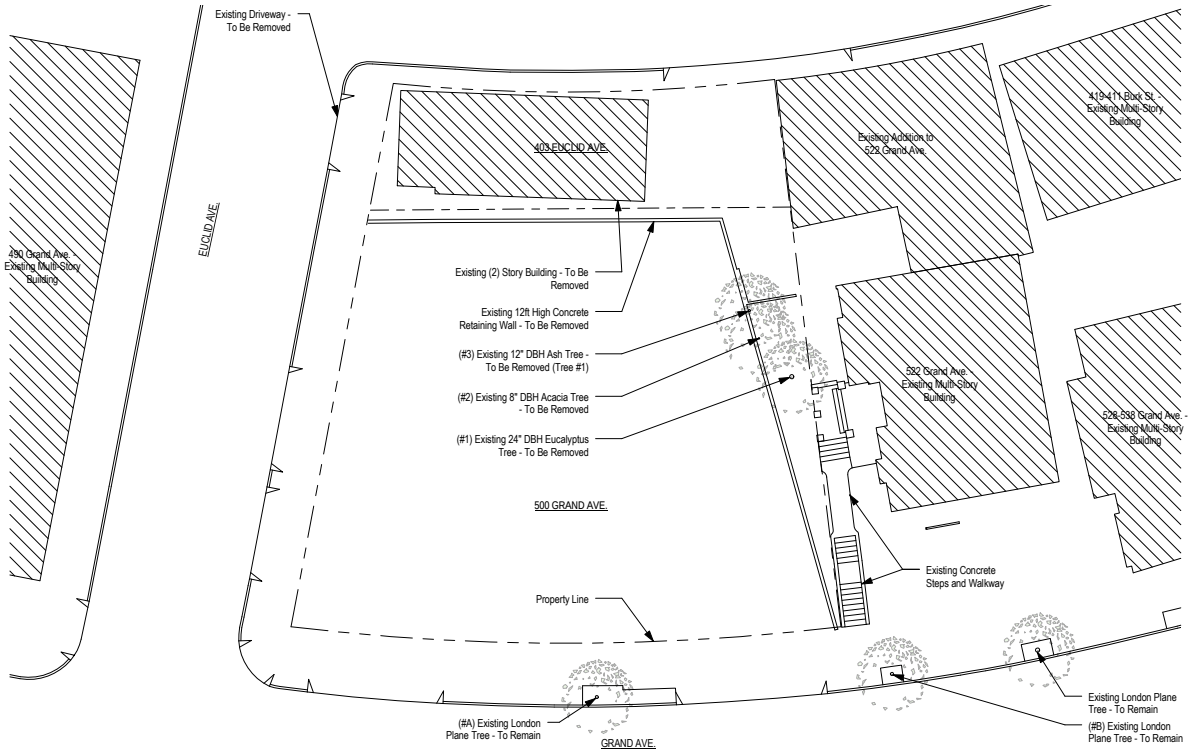
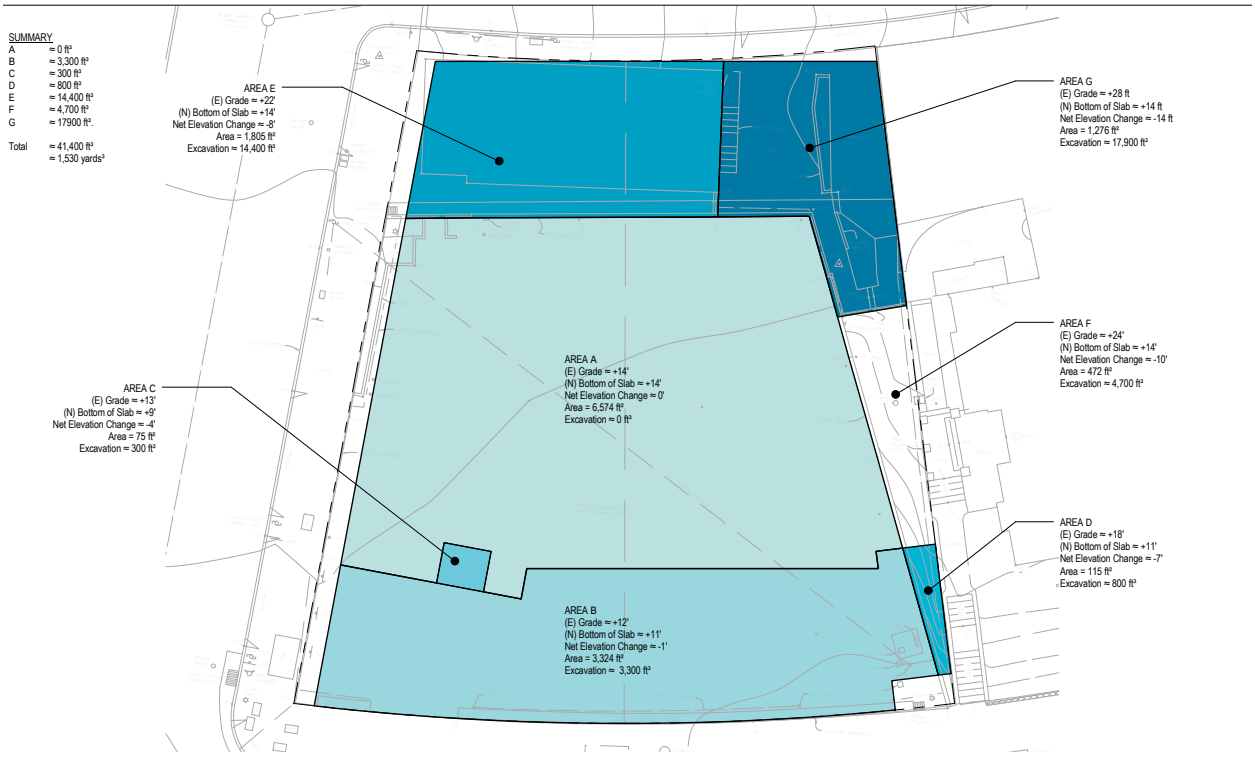


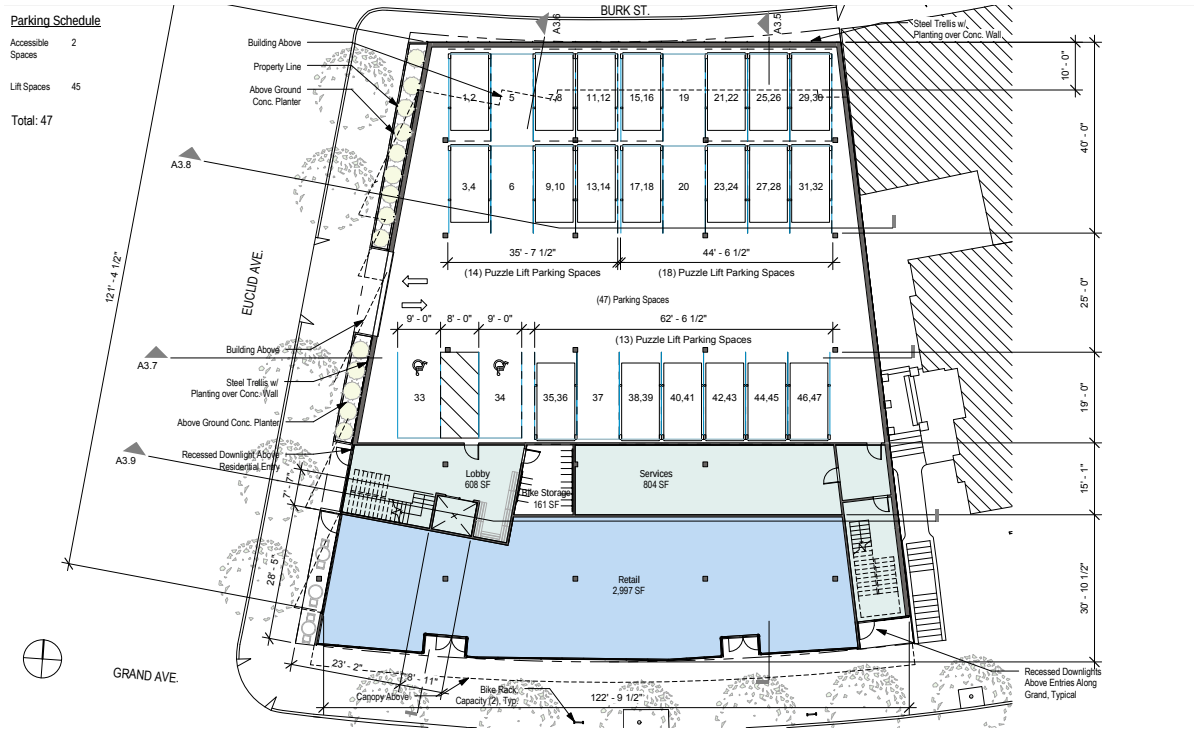
Demolition and Tree Removal Plan



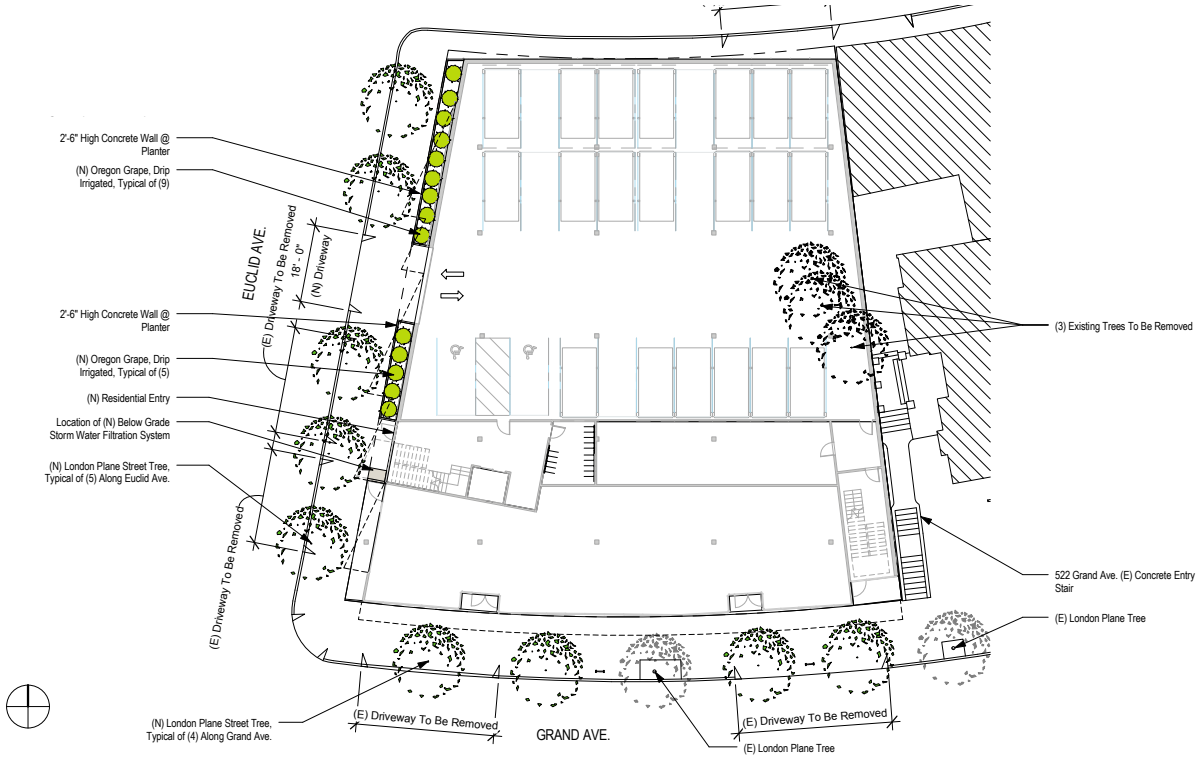
Conceptual Excavation Plan

Figure 5
Project Demolition and Excavation Plans

Source: Kava Massih Architects



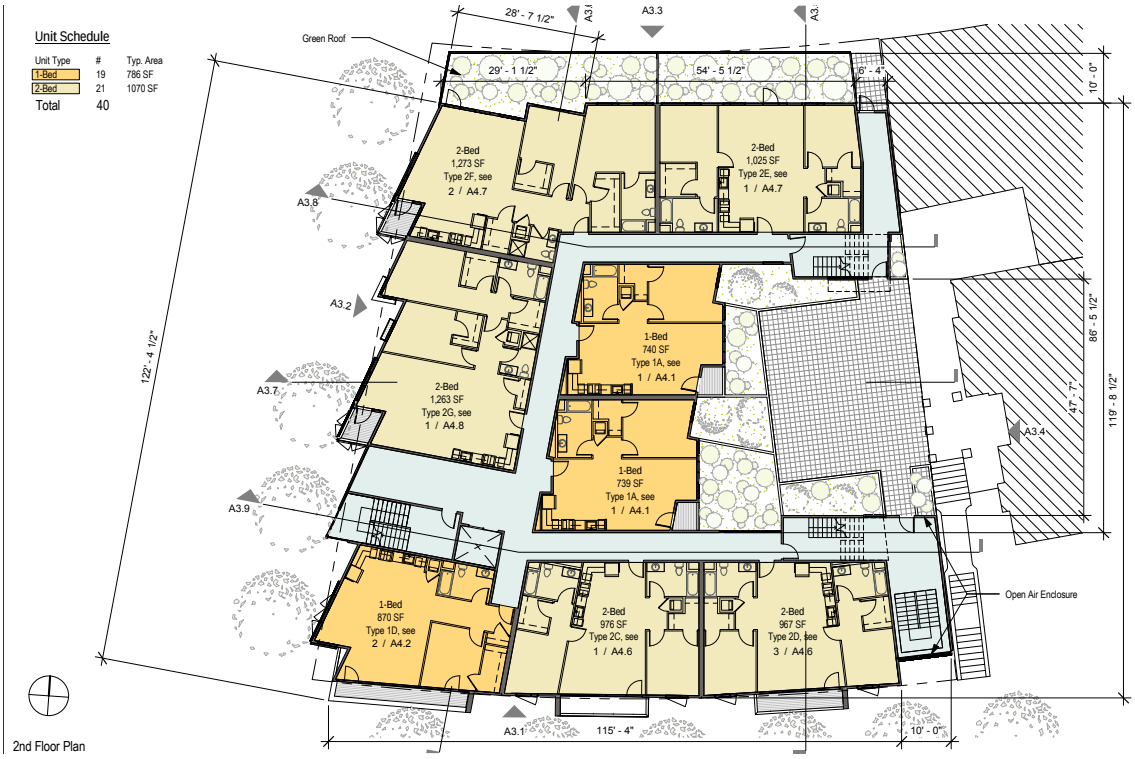
1st Floor Site Plan



1st Floor Landscape Plan

Figure 6
Ground Level Floor Plans

Source: Kava Massih Architects

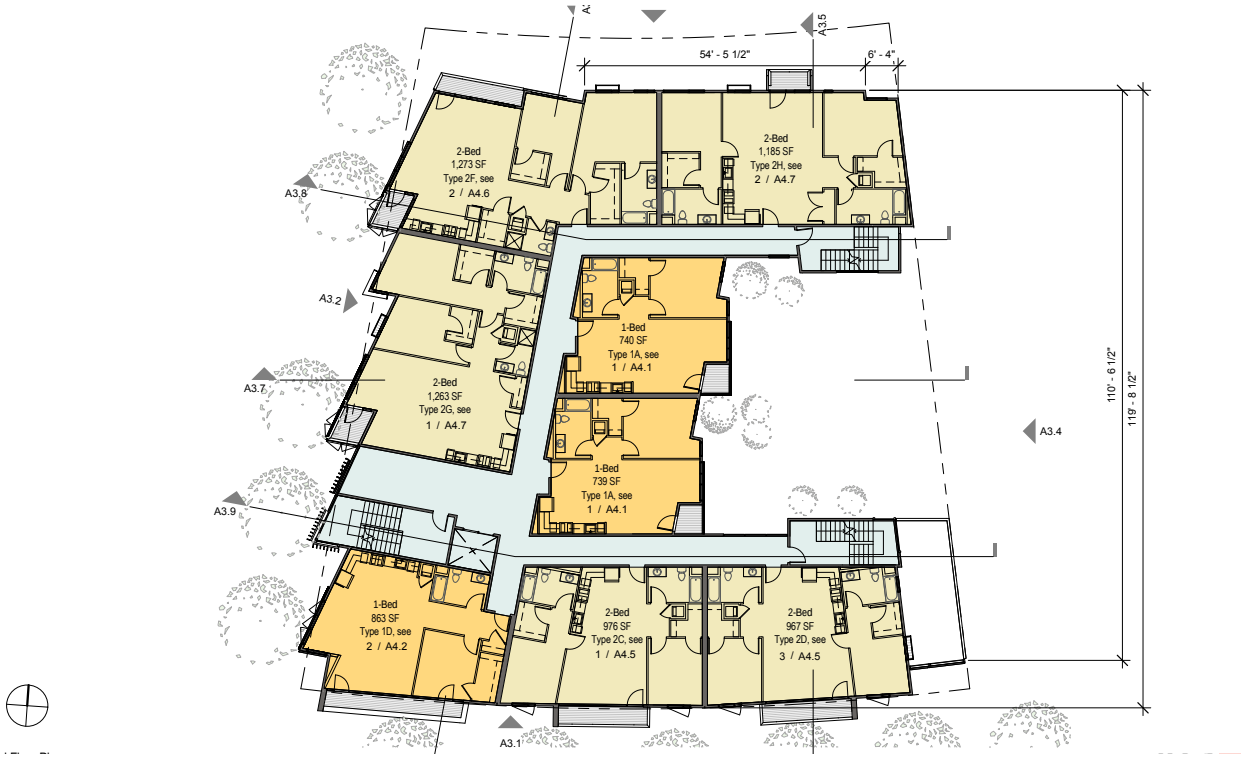


2nd Floor Site Plan

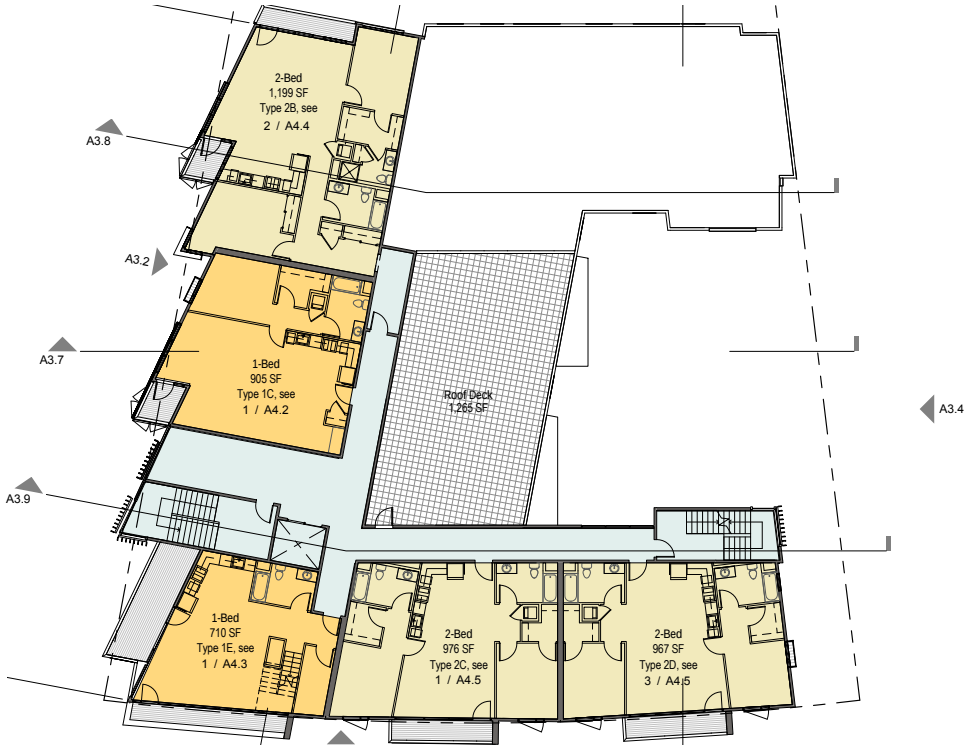
2nd Floor Landscape Plan

Figure 7
Second Level Floor Plans

Source: Kava Massih Architects



Levels 3 through 5 Floor Plans (Typical)



Level 6 Floor and Roof Plans

Figure 8
Project Floor Plans, Levels 3-6

Source: Kava Massih Architects

South Elevation (Grand Avenue)

Rendering, from Grand Avenue

Figure 9
View of Project from Grand Avenue

Source: Kava Massih Architects

North Elevation (Burk Street)

Rendering, from Euclid and Burk)

Figure 10
View of Project, from Burk

Source: Kava Massih Architects

VI. SUMMARY OF FINDINGS

An evaluation of the Project is provided in the CEQA Analysis below. This evaluation concludes that the Project qualifies for an exemption from additional environmental review and the Project is consistent with the development density and land use characteristics established by existing zoning and General Plan policies for which an EIR was certified [i.e., the City of Oakland General Plan LUTE and LUTE Environmental Impact Report (EIR) (1998), the General Plan 2007-2014 Housing Element and EIR (2010) and the 2015-2023 Housing Element and Addendum (2014), collectively referred to as the Program EIRs herein]. As such, the Project would be required to comply with the applicable mitigation measures identified in the Program EIRs, as well as any applicable City of Oakland SCAs (see Attachment A for a complete list of SCAs referred to and required by this CEQA Analysis). With implementation of the applicable mitigation measures and SCAs, the Project would not result in a substantial increase in the severity of significant impacts that were previously identified in the General Plan or any new significant impacts that were not previously identified in the prior EIRs.

In accordance with Public Resources Code Sections 21083.3 and 21094.5, and State CEQA Guidelines Sections 15183 and 15183.3, and as set forth in the CEQA Analysis below, the Project qualifies for an exemption because the following findings can be made:

- **Community Plan Exemption:** The following analysis demonstrates that the Project is consistent with the development density established by existing zoning and General Plan policies for which an EIR was certified (i.e., the Program EIRs). As detailed below in Attachment B, the Project is permitted in the zoning district where the Project site is located (CN-2/S-12) and consistent with the bulk, density, and land use standards envisioned in the General Plan and the Municipal Code; the Project designates 12.5% of its units for low-income residents, which qualifies it for housing density bonuses and incentives per Tables 17.107.01and 17.107.05 of the Planning Code. Connected to the density bonus for affordable housing, the applicant has requested a concession to the required height limit and a waiver of the visitor parking development standard as permitted under Planning Code Section 17.107.095. As such, the analysis presents substantial evidence that, other than Project-specific effects which may be peculiar to the Project or its site, the Project's potential contribution to overall cumulatively significant effects has already been addressed as such in the Program EIRs, or will be substantially mitigated by the imposition of SCAs, as further described in Attachment A.
- **Qualified Infill Exemption:** The following analysis demonstrates that the Project is located in an urban area on a site that has been previously developed; satisfies the performance standards provided in CEQA Guidelines Appendix M; and is consistent with the General Plan land use designation, density, building intensity and applicable policies. As such, this environmental review is limited to an assessment of whether the Project may cause any Project-specific effects not addressed in the prior applicable EIR, and relies on uniformly applicable development policies or standards to substantially mitigate cumulative effects.
- **Program EIRs:** The analyses in the 2010 Housing Element EIR, the 2014 Addendum, and this CEQA Analysis demonstrate that the Project would not result in substantial changes

or involve new information that would warrant preparation of a subsequent EIR, per CEQA Guidelines Section 15162, because the level of development proposed for the site is within the broader development assumptions analyzed in the previous EIRs. The effects of the Project have been addressed in those EIRs and no further environmental documents are required in accordance with CEQA Guidelines Sections CEQA Guidelines Section 15168 (c).

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

Robert Merkamp
Development Project Review Manager

Date

For

Darin Ranelletti
Environmental Review Officer

VII. CEQA CHECKLIST

Overview

This CEQA Checklist compares the potential environmental impacts that may result from construction and operation of the Project to those that were evaluated in the Housing Element EIR and the subsequent Addendum (HE EIR). Potential environmental impacts of development under the Housing Element were analyzed in the HE EIR, and that prior EIR identified mitigation measures and SCAs[11] to address these potential environmental impacts.

This CEQA Checklist hereby incorporates by reference the HE 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 HE EIR.

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

- Equal or Lesser Severity of Impact previously identified in HE EIR;
- Substantial Increase in Severity of previously identified significant impact in HE EIR; or
- New Significant Impacts.

Where the severity of the impacts of the Project would be the same as or less than the severity of the impacts described in the HE EIR, the checkbox for Equal or Less Severity of Impact previously identified in HE EIR is checked. If the checkbox for Substantial Increase in Severity of previously identified Significant Impact in HE EIR, or New Significant Impact were checked, it would indicate that there are significant impacts that are:

- Peculiar to the Project or Project site (per CEQA Guidelines Sections 15183 or 15183.3);
- Not identified in the previous EIR (HE EIR) (per CEQA Guidelines Sections 15183 or 15183.3), including offsite and cumulative impacts (per CEQA Guidelines Section 15183);
- Due to substantial changes in the Project (per CEQA Guidelines Section 15162);
- Due to substantial changes in circumstances under which the project will be undertaken (per CEQA Guidelines Section 15162); or

[11] 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.

- Due to substantial new information not known at the time the HE EIR was certified (per CEQA Guidelines Sections 15162, 15183, or 15183.3).

The Project is required to comply with applicable mitigation measures identified in the HE 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 Project. This CEQA Checklist includes references to the applicable mitigation measures and SCAs.

Attachments

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

A. Standard Conditions of Approval and Mitigation Monitoring and Reporting Program

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

C. Infill Performance Standards, per CEQA Guidelines Section 15183.3

D. Site Management Plan

E. Air Quality & GHG Emissions Screening Evaluation

F. Trip Generation Analysis

Aesthetics, Shadow, and Wind

Would the project:	Equal or Less Severity of Impact Previously Identified in HE 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 addressing the provision of adequate light related to appropriate uses; or	☒	☐	☐

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

Housing Element EIR & LUTE EIR Conclusions

Scenic Vistas (Criterion 1a)

The HE EIR concluded that development under the Housing Element could have direct impacts to existing scenic vistas. Some of the Opportunity Sites identified in the Housing Element could feature scenic vistas, which could be impacted by the construction of new dwelling units. Private scenic vistas as seen from the Opportunity Sites are not protected under the City of Oakland General Plan. As such, scenic views seen from the individual housing sites are not discussed further. City Design Guidelines would ensure that development under the Housing Element would be compatible with the existing built form and architectural character of the area as a whole, and compatible with the distinctive visual character of individual areas. Development will be required to comply with SCAs AES-2 and AES-3, related to landscaping, street frontages, landscape maintenance, utility undergrounding, public right-of-way improvements, and lighting plans.

However, as discussed in the EIR, views of the Oakland-Berkeley Hills from the flatlands, downtown, Lake Merritt and the shoreline, along with panoramic views from Skyline Boulevard/Grizzly Peak Road, are protected by the General Plan. Therefore, compliance with the General Plan policies and the Planning Code would reduce the impacts to less than significant. These policies and conditions protect views and scenic vistas. These General Plan policies and regulations within the Planning Code are identified in the HE EIR Initial Study.[12]

The HE EIR concluded that compliance with the LUTE policies, OSCAR Element policies, Scenic Highway Element policies, and Chapter 15.52 of the Municipal Code would reduce scenic view and vistas impacts to less than significant.

Scenic Resources within Designated Scenic Routes

[12] City of Oakland Housing Element 2007-2014: Initial Study, p. 26.

The MacArthur Freeway/Route 580, in its entirety, was included in the State Scenic Highway System in 1970 by an act of the State legislature. Views as seen from this scenic route could be impacted by adding building mass that could obstruct existing views from this freeway. The HE EIR concluded that implementation of the Housing Element could have direct impacts to designated scenic highways. The HE EIR details the General Plan Land Use and Transportation, Open Space, and Scenic Highways goals, policies, and actions that would reduce any impacts to a less-than-significant level.[13]

Visual Character

The HE EIR concluded that impacts to designated scenic resources would also affect the visual character of an area. The construction of new housing units throughout the City would directly affect scenic resources identified in the HE EIR, including significant physical and built features, natural landmarks, or protected trees. Increased building massing under the Housing Element could occur in the vicinity of significant landmarks at Lake Merritt, and could potentially detract from the character of Lake Merritt, as well as adjacent landmarks.

In addition, construction of housing units, especially within the downtown area, has the potential to be visually incompatible with existing significant structures. In addition, housing construction could remove protected trees and other landscaping, which would degrade visual character. The EIR identified applicable policies and conditions from the LUTE and OSCAR Elements of the General Plan that would be applied to ensure that potential impacts to existing visual character resulting from housing development on any approved sites would be mitigated on a site-by-site basis.[14]

In addition to the HE EIR analysis, the LUTE EIR addressed potential impacts to aesthetic resources from housing construction. The Visual and Aesthetic Conditions section of the LUTE EIR (page III.F-1 – III.F-12) adequately addresses potential impacts to aesthetic resources. The LUTE EIR determined that development under the General Plan would not adversely affect existing visual resources with the implementation of LUTE goals, objectives, policies, and actions. Mitigation measures in the LUTE EIR require development of design guidelines for height and bulk in the Downtown and all Neighborhood Commercial areas, and require parking facilities to ensure the preservation of significant visual characteristics.[15] Applicable mitigation measures from the General Plan and applicable SCAs will be implemented as part of the Project. Applicable SCAs are included in Attachment A.

Light and Glare

The HE EIR found that development pursuant to the Housing Element could create new sources of light and glare through the use of exterior lighting and reflective materials and could adversely affect nighttime and daytime views. Additional exterior lighting from new dwelling units could adversely affect nighttime views in the area. Exterior lighting could also potentially

[13] City of Oakland Housing Element 2007-2014: Initial Study, p. 28.
[14] Ibid, p.29-34.
[15] City of Oakland Land Use and Transportation Element EIR, 1998 (page III.F-1 – III.F-12)

spill off-site and onto nearby residential properties if proper controls are not incorporated. Glare can result from daytime reflection of sunlight off flat and reflective building surfaces, and could annoy residences and impair motorists driving by along roads that have direct views of the reflective material. Without regulation, light and glare would thus result in a potentially significant impact resulting from the Housing Element.

However, housing development is subject to requirements found in SCA AES-3 and the Municipal Code that prevent significant impacts from light and glare.

Shadow (Criteria 1b through 1d)

The HE EIR concluded that development could potentially cast shadows on public and quasi-public parks, lawns, gardens, or open spaces, which could cause a significant impact. Shadows generated by new structures could potentially impact public and quasi-public parks, lawns, gardens, and open spaces.

While the City's General Plan objectives and policies, the LUTE EIR mitigation measures, and the SCAs do not expressly contain regulations regarding shadows created by new structures or landscaping, the regular design review criteria in the Planning Code (Oakland Municipal Code 17.136.050 (A) 2) does include a finding "that the proposed design will protect, preserve, or enhance desirable neighborhood characteristics." This finding is used by Planning staff to evaluate potential shadow impacts, often through shadow studies. In addition to consistency with this criteria and this finding, the City's CEQA Initial Study Checklist requires further analysis of shadow impacts from new buildings. As such, shadow impacts on neighboring solar panels, solar collectors, open spaces, parks, or historical structures would be less than significant.

Wind (Criterion 1e)

The HE EIR concluded that implementation of the Housing Element could alter wind speeds because new structures could intercept existing wind flows and alter the winds course, potentially focusing the wind through a break between structures. This disruption and potential focusing of the wind can cause wind speeds to accelerate to levels that are uncomfortable for pedestrians. However, prior to issuance of approvals from the City of Oakland, any individual project that would meet the City of Oakland's criteria for requiring a wind analysis would be subject to CEQA review. The City requires a wind analysis when 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. Projects of lesser height are assumed to have less-than-significant impacts.

Project Analysis and Conclusion

Consistent with the findings of the HE 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. A small number of residents on the upper floors of two buildings

directly behind the Project (404-408 Burk Street) may have their existing private views of Lake Merritt altered or blocked; however, private scenic vistas are not protected under the City of Oakland General Plan and this impact is therefore not considered significant. Views of the Oakland-Berkeley hills from Lake Merritt (which are protected in the General Plan as noted above) would not be impacted, because the Project is located north of the Lake, and therefore it is not situated between the Lake and the hills, such that views could be obstructed.

Pursuant to the General Plan goals for Neighborhood Commercial zones, development within the Project area should contribute to the creation of a coherent, well-defined and active public realm that supports pedestrian activity and social interaction, and to the creation of a well-organized and functional private realm that supports the needs of tenant businesses. The Project meets this guideline by developing new ground-level retail space with transparent windows, repaving the sidewalk along the Project site and adding amenities such as street trees, planters, pedestrian accent paving, and lighting. The Project requires design review approval, pursuant to Section 17.33.020 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 applicable Design Guidelines. The Project would be contemporary in design. The primary façade materials would include cement plaster, fiber cement smooth plank siding, composite metal panels, and steel, cedar, and glass custom storefronts. Variety in the façade is provided by the use of cementitious panels, timber wall panels and operable steel and cedar screens.

The Design Review process will ensure the Project would be consistent with standards and guidelines related to aesthetics, compatible with the existing built form and architectural character of the neighboring area as a whole, and compatible with the distinctive visual character of individual areas.

Shadow

A shadow study was conducted on the Project (Figures 11a & 11b). It demonstrates that the Project would not cast shadows on the Lakeside Park to the south. It would, however, cast an afternoon shadow on the neighborhing historic Morse House at 522-526, partially covering the façade of the house in shadows at 3pm in fall, and covering most of the structure in shadows (but leaving most of the Grand Avenue-facing façade in sunlight) by 3pm in winter. As described in Section VII: Cultural Resources, this house meets the criteria in CEQA Guidelines 15064.5 (a)(2) to be defined as a historic resource. It is a Craftsman-Tudor Revival house, built around 1915 and designed by noted architect Julia Morgan. It has received an Oakland Cultural Heritage Survey rating of B+1+. The property has been placed on the City of Oakland Preservation Study List by the Oakland Landmarks Preservation Advisory Board, and "appears eligible for the National Register of Historic Places" under criterion C, architecture, and under criterion B, persons, for its original owner-occupant Dr. Frederick Morse. The property appears to be eligible both individually (NRHP Status Code 3) and as a district contributor (NRHP Status Code 3D).

However, the shadows would not adversely affect the resource's historic integrity as an example of period architecture, or its contribution to the Lake Merritt Historical District, an Area of Primary Importance within which it is located, because the historic and architectural features

which define its contribution to the District (described in Section VII: Cultural Resources) are not dependent on, or impaired without, unrestricted sunlight. Therefore, development of the Project will not remove or impair any contributing landscape architectural features or structures of high architectural integrity, and thus will not impair the significance of the Lake Merritt Historic District, As such, the impacts would be less than significant.

A review of the City's List of Active Major Development Projects (Fall 2016)[16] revealed that there are no reasonably foreseeable future development projects in the area that would add overlapping shadows to the Morse House. Therefore, there would be no cumulative shadow impacts from the Project.

Wind

The City's CEQA Thresholds require a wind analysis only if the Project's height is 100 feet or greater (measured to the roof). Because the Project is lower than 100 feet high, no significant wind impacts would occur.

Based on an examination of the analysis, findings, and conclusions in the HE EIR and Addendum, implementation of the Project would not substantially increase the severity of the significant impacts identified in the HE EIR, nor would it result in new significant impacts related to aesthetics, shadows, or wind that were not identified in the HE EIR. It would not materially impair the historical significance of the adjacent historic property. The 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).

[16] List of Active Major Development Projects Fall 2016, Accessed December 17, 2016 at http://www2.oaklandnet.com/oakca1/groups/ceda/documents/agenda/oak060789.pdf.

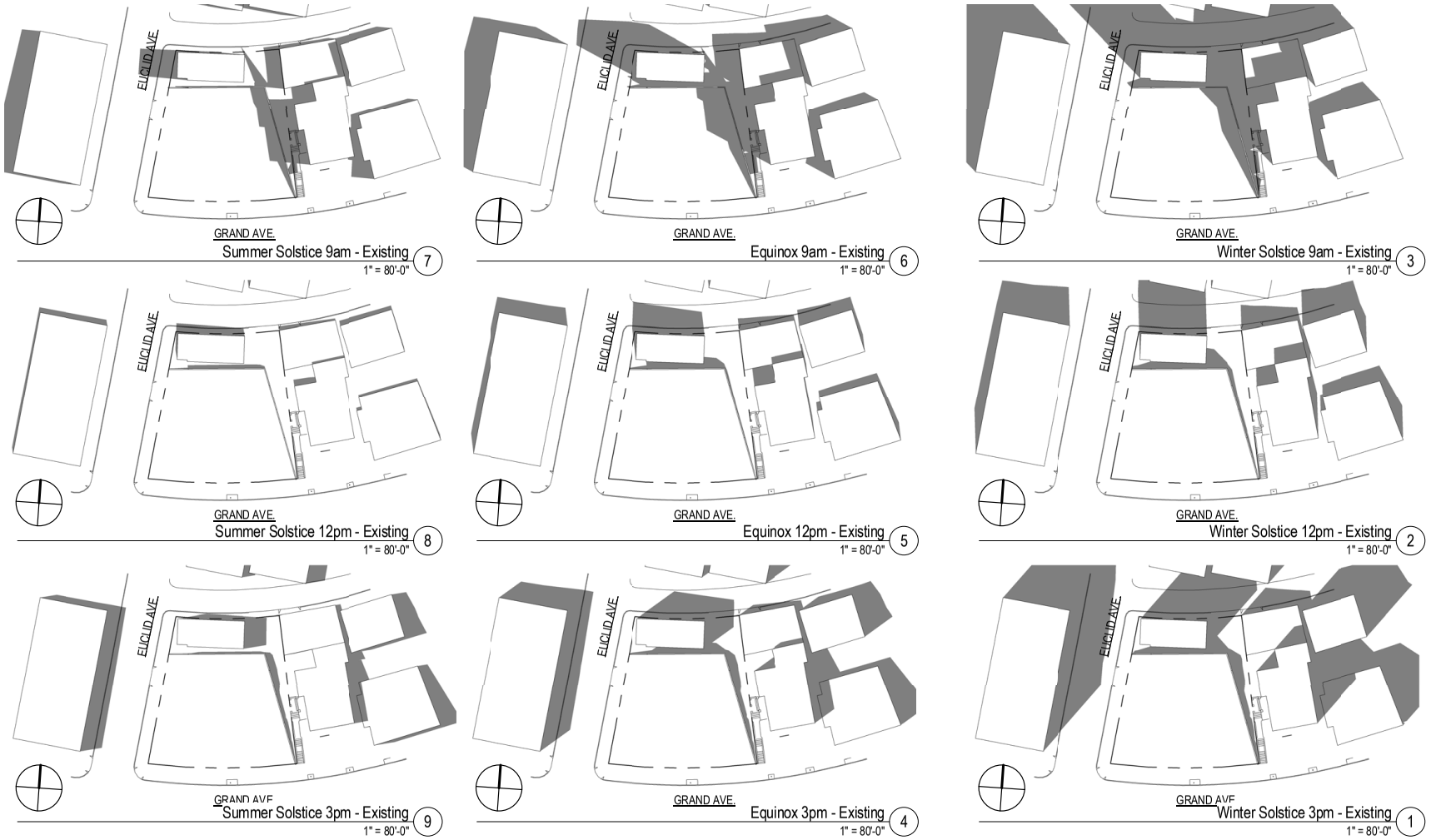


Figure 11A
Shadow Conditions, Existing

Source: Kava Massih Architects

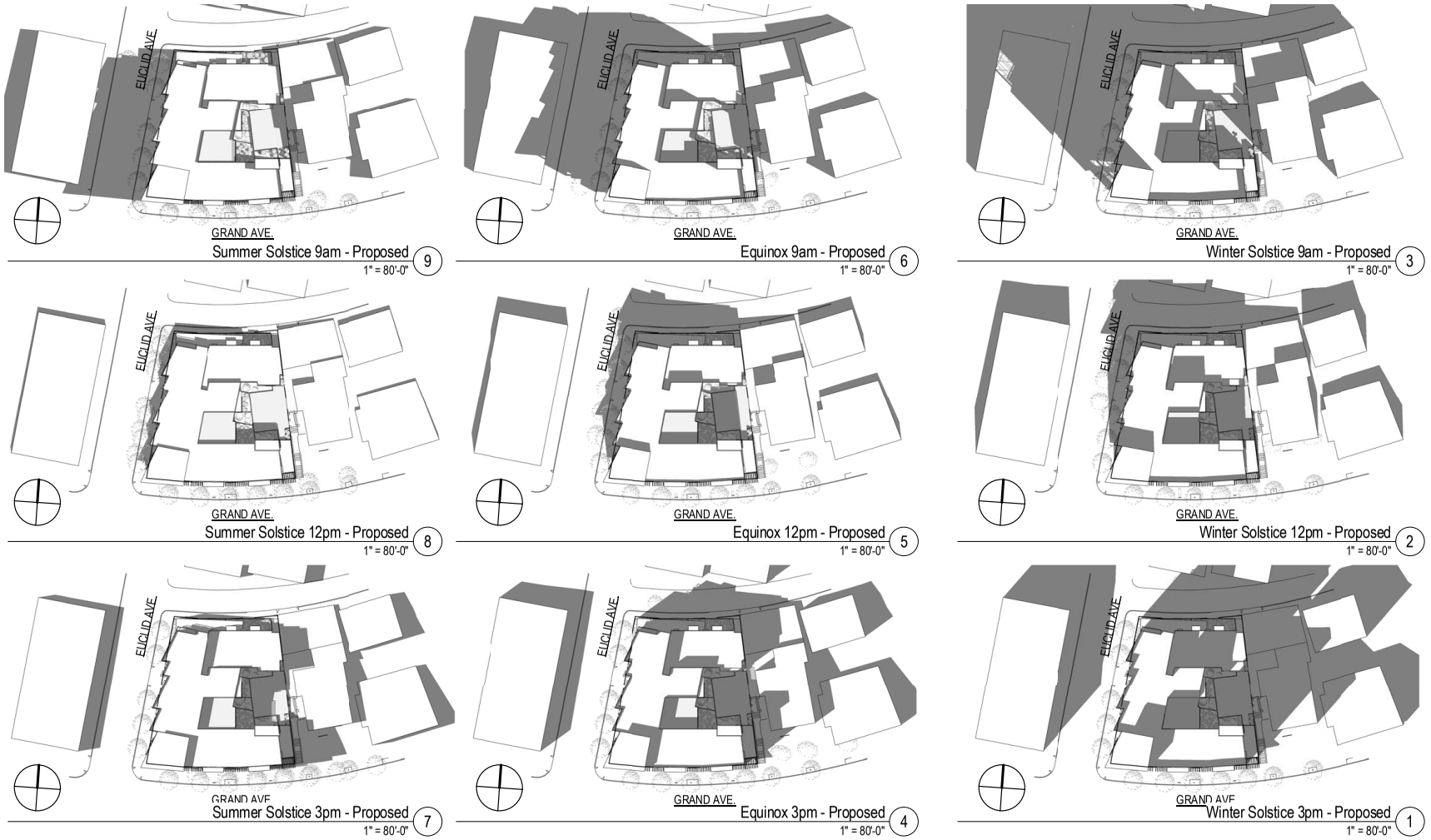


Figure 11B
Shadow Conditions, with Project

Source: Kava Massih Architects

Air Quality

Would the project:	Equal or Less Severity of Impact Previously Identified in HE 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, NOx, 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, NOx, or $PM_{2.5}$, or 82 pounds per day of PM_{10}; result in maximum annual emissions of 10 tons per year of ROG, NOx, 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 non-cancer 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 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; 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.	☒	☐	☐

Housing Element EIR & LUTE EIR Conclusions

Construction and Operational Emissions (Criterion 2a)

The HE EIR determined that development pursuant to the HE would not exceed the national and State ambient air quality standards for carbon monoxide (CO), and impacts associated with localized CO would be considered less than significant for all development under the HE. It concluded that no project-specific CO analysis would be required.

The HE EIR further determined that the HE would not conflict with the Bay Area Clean Air Plan and its control measures related to air quality, and that other construction and operational emissions from development under the HE would not have significant cumulative impacts. All projects pursuant to the HE would implement construction best management practices, and would include control measures included in the current air quality plan. The rate of increase in

vehicle miles traveled would be less than the rate of population increase.

The LUTE EIR evaluated air emissions increases from the General Plan LUTE by: (1) conducting air quality modeling to estimate whether emissions associated with Plan-related additional growth would cause violations of the ambient state and federal standareds on a regional and local basis; and (2) evaluating the potential for nuisance odors and localized emissions as a result of proposed General Plan map changes. The EIR found that If residential uses are located above parking garages (such as in the proposed Project), residents could be subject to exhaust odors generated by parking cars in the garage. As warm exhaust fumes leave a parking garage and rise along the sides of a building, they could then re-enter open windows of upstairs residential units. Because such a process would tend to be intermittent, it would not likely cause air quality standards to be violated. There may, however be brief periods when exhaust odor could be detectable, especially if a large number of cars are "cold-started" at the same time and are running inefficiently. Such nuisance potential could be reduced by provision of adequate openings in the parking garage walls to help increase ventilation and dispersion of exhaust emissions generated within a parking garage.

The LUTE EIR lists objectives and policies that will reduce air quality impacts by encouraging use of transit and alternative transportation modes[17]. These include the existing adopted policies CO-12.1, CO-12.2, CO-12.3, CO-12.4, and CO-12.7, of the Open Space, Conservation, and Recreation (OSCAR) Element.

Toxic Air Contaminants (Criterion 2b)

The HE EIR determined that residential development proposed under the HE could expose occupants at certain sites to substantial health risks from diesel particulate matter (DPM) from mobile and stationary sources. However, compliance with SCA-AIR-2 (Attachment A) would reduce impacts to a less-than-significant level. The HE EIR further determined that residential development proposed under the HE could expose occupants at certain sites to substantial health risk from gaseous TACs emitted locally from stationary sources. Although compliance with SCA-AIR-2 requires that site specific health risk assessments be prepared under certain circumstances (which are not met by the Project), there is no assurance that such exposures could be reduced to a less-than-significant level at every site; therefore, the HE EIR considered this impact to be significant and unavoidable.

Project Analysis and Conclusion

The Project would result in an increase in criteria air pollutant and precursor emissions from mobile on-road sources and onsite area sources during both the operational and construction periods. The Project would be required to comply with applicable SCAs related to construction emissions (SCA-AIR-1). The Project will not employ a backup generator, therefore it will not introduce any stationary sources of air pollution.

[17] City of Oakland, Land Use and Transportation Element EIR, p. III. E-13 through E.16.

The City of Oakland utilizes screening criteria to provide a conservative indication of whether a Project could result in potentially significant air quality impacts related to operational emissions. If the screening criteria are not exceeded by a project, quantification of the project's air pollutant emissions is not necessary to make a determination that the impact will be below the thresholds of significance. The Project's 40 residential units are well below the operational criteria pollutant screening size of 494 units (8%), and also well below the construction criteria pollutant screening size of 240 units (17%), and only 1% of the construction criteria pollutant screening size for commercial space of 277,000 square feet. Therefore, the Project is well below operational and construction criteria air pollutant screening standards and would not have project-specific impacts related to operational and construction criteria emissions.

Implementation of the Basic controls under SCA-AIR-1 would reduce emissions of both criteria air pollutants and TACs during construction. SCA-AIR-1 minimizes construction health risks by requiring exposed surfaces to be watered; trucks hauling sand, soil, and other loose materials to be covered; visible dirt track-out to be removed daily; new roads, driveways, sidewalks to be paved within one month of grading or as soon as possible; stockpiles to be enclosed, covered, and watered twice daily; vehicle speeds on unpaved roads to be limited; and idling time to be limited. Further, SCA AIR-1 minimizes diesel emissions by minimizing idling; ensuring that construction equipment is running in proper condition; and by specifying that portable equipment would be powered by electricity if available.

The HE EIR noted that specific residential development projects should consider localized health risk in relation to stationary sources to determine appropriate application of conditions and mitigation. The Project would construct new residential uses within 1,000 feet of stationary and roadway sources of TACs. As a result, a screening analysis was conducted to assess the cumulative health risk to the Project's sensitive receptors, included as Attachment E. Based on a conservative screening-level health risk analysis, 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). This is below the 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). As residential projects are not generally considered substantial sources of operational TACs, preparation of a Health Risk Assessment or adoption of further risk reduction strategies to reduce the exposure of existing sensitive receptors to new TAC emissions under SCA-AIR-3: Stationary Sources of Air Pollution (Toxic Air Contaminants) and HE EIR Mitigation Measure AIR-4 is not required. If the Project subsequently proposes an emergency generator, a BAAQMD stationary source permit for that unit would be required, and SCA-AIR-3 would be applicable, requiring assessment/risk reduction to demonstrate resultant risk would be below applicable threshold levels. The site's location as a sensitive receptor and near other sensitive receptors is typical of other project sites in the HE area and other urban areas; therefore, there would be nothing unique or peculiar about the Project's proximity to emission sources or sensitive receptors that would result in new or more significant impacts than previously analyzed in the HE EIR.

Since there is an existing structure on the site, SCA-AIR-4: Asbestos in Structures would be applicable.

Based on an examination of the analysis, findings, and conclusions of the HE EIR, implementation of the Project would not substantially increase the severity of significant impacts identified in the HE EIR, nor would it result in new significant impacts related to air quality that were not identified in the HE EIR. The Project would be required to implement SCAs related to air quality, as identified in Attachment A (SCA-AIR-1, and also SCA-AIR-3 if an emergency generator is proposed). The Project is below the 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. SCA-AIR-4 would potentially apply to the structure at 403 Burk St, if it includes asbestos-containing materials.

Biological Resources

Would the project:	Equal or Less Severity of Impact Previously Identified in HE 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.	☒	☐	☐

Housing Element EIR & LUTE EIR Conclusions

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

As stated in the HE EIR, the Alameda whipsnake, Presidio clarkia, and most beautiful jewel-flower have all been recorded within the City and surrounding areas. However, all identified development associated with the Housing Element is located well outside of identified whipsnake habitat, and not located within the known range of historic occurrences of the Presidio clarkia and most beautiful jewel-flower.

Development pursuant to the Housing Element would occur primarily in already urbanized areas and would not have a substantial adverse effect on sensitive plant and wildlife species. The effects of individual, site-specific projects on such species must be determined at the project level. Compliance with the City's General Plan Policies CO-7.1, CO-9.1, and CO-11.1 (found in the OSCAR Element) would ensure the protection of sensitive plant and wildlife species and their habitats. Therefore, a less-than-significant impact would occur, including potential impacts to any previously undiscovered occurrences of the Presidio clarkia and most beautiful jewel-flower.

Given the nearby presence of the Lake Merritt National Wildlife Refuge, there is the potential for migratory birds to use existing trees for nesting and for migratory fish or other aquatic species to use creeks. Development pursuant to the Housing Element could result in the removal of existing vegetation, including trees, and creekside development could interfere with the movement of aquatic species. The HE EIR concludes that compliance with the City's General Plan Policy CO-11.2, the Federal Endangered Species Act, Federal Migratory Bird Treaty Act, California Endangered Species Act, and California Department of Fish and Game regulations regarding Fully Protected Species and Species of Concern, would reduce impacts on sensitive plant and wildlife species, as identified by the CDFG or the USFWS, to less than significant.

In addition, the LUTE EIR listed policies in the OSCAR Element of the General Plan that would reduce localized biotic resource impacts from development[18].

Development pursuant to the HE is required to comply with SCAs related to removal and replacement of trees; 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 housing development projects in the Plan Area. Additionally, development that includes a substantial vegetated or green roof, includes an existing or proposed vegetated area one acre or larger, or is adjacent to a substantial water body or a substantially vegetated recreation area larger than one acre, will be required to comply with SCA BIO-3 Bird Collision Reduction Measures, pertaining to reducing bird collisions with buildings, which will reduce potential impacts to birds by constructing features in compliance with Best Management Practice strategies to limit bird strikes.

[18] City of Oakland, Land Use and Transportation Element EIR, p. III.H.-14 through H.17.

SCAs pertaining to landscaping and vegetation management; hazardous materials management; stormwater and erosion control, and construction measures to reduce bird collisions will reduce the potential impacts on water quality and reduce the potential for bird collisions. Moreover, compliance with the City's General Plan Policies CO-5.3, CO-6.1, CO-6.4, CO-6.5 (found in the OSCAR Element), W-3.1, W-3.2, and W-3.3 (found in the LUTE), as well as the City's SCA-72 and 75 through 88 would further ensure protection of riparian and aquatic habitats. Therefore, a less-than-significant impact would occur.

Project Analysis and Conclusion

The approximately 14,308 square-feet Project site is located in an urban setting on a site that has been developed for different uses for over 70 years, currently as a paved parking lot and an adjacent commercial structure. As such, the Project site provides no natural habitat for special status species, wildlife corridors, or riparian or sensitive habitat. Three (3) existing trees between 522 Grand and the Project site will be removed: one each of acacia (8" DBH), ash (12" DBH), and eucalyptus (24" DBH). The ash tree is protected under Chapter 12.36 of the Oakland Municipal Code, therefore a tree removal permit would be required pursuant to SCA BIO-2, and the tree removal must be conducted in accordance with the requirements of SCA BIO-1, related to bird nesting season. Four additional street trees are proposed along Grand and five (5) along Euclid Ave (all London Plane Trees). These will add to the two existing London Plane trees on Grand Ave.

The Project site is within several hundred feet of the northeastern arm of Lake Merritt, separated from the Lake by Lakeside Park, which is a narrow strip at its closest to the Project site (less than 200 feet separate the lakeshore from the southern edge of Grand Avenue). The Lake Merritt National Wildlife Refuge (Refuge), the oldest bird sanctuary in the U.S., is located in this portion of the Lake. The artificial islands of the Refuge, the first of which was built in 1925, house hundreds of egrets, herons, canada goose, and many other species of birds. The islands are equipped with fresh water ponds. To ensure that marine sports and boating activities based at Lake Merritt do not distrupt the birds, a boom cordons off the five islands during nesting season. The Project's compliance with the General Plan policies and SCAs mentioned above (General Plan Policies CO-5.3, CO-6.1, CO-6.4, CO-6.5 (found in the OSCAR Element), W-3.1, W-3.2, and W-3.3 (found in the LUTE), as well as the City's SCAs BIO-1, BIO-2, and BIO-3) would ensure that impacts to biological resources are less than significant.

The Project site is not located immediately adjacent to a creek. Pleasant Valley Creek flows south, but is completely undergrounded adjacent to Grand Avenue from the north, and drains to Lake Merritt approximately 400 feet to the northeast of the Project site. Because there are no open sections of the Creek near the Project area, the Creek Protection Ordinance does not apply to the Project.

Due to the proximity of the Project to Lakeside Park and the Refuge, the Project would be required to comply with SCA BIO-2, which requires that, 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). In addition, the Project would be required to comply with SCA BIO-3: Bird Collision Reduction Measures.

Based on an examination of the analysis, findings, and conclusions in the HE EIR, implementation of the Project would not substantially increase the severity of the significant biological impacts identified in that EIR, nor would it result in new significant impacts related to biological resources that were not identified in the HE EIR. The HE EIR did not identify any mitigation measures related to biological resources, and none would be needed for the Project. SCAs related to tree removal, tree permits, City of Oakland Tree Protection Ordinance, and construction activity and operations are identified in Attachment A (SCA-BIO-1: Tree Removal During Bird Breeding Season, SCA-BIO-2: Tree Permit, and SCA BIO-3: Bird Collision Reduction Measures).

Cultural Resources

Would the project:	Equal or Less Severity of Impact Previously Identified in HE 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.	☒	☐	☐

Housing Element EIR & LUTE EIR Conclusions

Historical Resources (Criterion 4a)

The HE EIR found that implementation of the 2007-2014 Housing Element would not have direct, on-site physical impacts to existing historical resources. Some housing sites could involve demolition of, or impacts to, historic resources. However, prior to issuance of approvals from the City of Oakland, each of these projects would have been subject to CEQA review, as well as to the Standard Conditions of Approval (described in Attachment A) and the

goals and policies of the Historic Preservation Element of the City of Oakland's General Plan. Given these requirements, the potential impacts to historic resources resulting from projects on any of the housing Opportunity Sites would be mitigated on a site-by-site basis.

The HE EIR also concluded that construction of these Opportunity Sites could indirectly impact surrounding historic properties. For example, vibration during construction activities could potentially damage nearby historic properties, or new development could be visually incompatible with the older, historical buildings. However, because housing development would be subject to various protective policies and conditions of approval, impacts would be less than significant. The policies and conditions that would apply to the housing development are described in the HE EIR[19], and include Policies 2.4, 3.1, 3.5 and 3.6 from the General Plan.

Compliance with the General Plan policies would reduce adverse changes in significant historical resources as defined by the CEQA Guidelines to a less-than-significant level.

Archaeological and Paleontological Resources (Criteria 4b and 4c) and Human Remains (Criterion 4d)

The HE EIR concluded that ground-disturbing activities (such as excavation) associated with the construction of the new housing units at Opportunity Sites could potentially unearth undiscovered archaeological or paleontological resources, or human remains. If ground-disturbing activities during construction are not protective of those cultural resources, then physical impacts could result. Disruption of such resources could result in a significant impact under CEQA.

Potential impacts to cultural resources have been addressed in the General Plan (Objective 4: Archeological Resources and Policy 4.1: Archeological Resources), the LUTE EIR (Mitigation Measures G.2) and by the City's SCAs (SCA-CUL-1, SCA-CUL-2). Compliance with General Plan objectives and policies, the LUTE EIR mitigation measure, and the SCAs would ensure resources are recovered and appropriate procedures are followed in the event of accidental discovery, and would therefore minimize potential risk of impact to archaeological resources to a less-than-significant level.

Project Analysis and Conclusion

Neither the surface parking lot portion of the Project site, nor the existing two-story commercial building at 403 Burk Street, are historic resources. However, the Project site is within the Lake Merritt Historic District (District), which primarily extends one building deep around the perimeter of the Lake, thereby including the parking lot at 500 Grand, but not the parcel at 403 Burk St, which is included in the Project site. The District also includes the contributing building at 522-526 Grand. This District has been surveyed by the Oakland Cultural Heritage Survey (OCHS) and identified as an Area of Primary Importance (API) for its governmental history and multiple public uses of the large central city amenity (the Lake); for

[19] City of Oakland Housing Element 2007-2014, Initial Study, 2010. p.69-70.

the landscape architecture of the Lake and adjacent parks; and for the high architectural quality of many of the buildings constructed on the Lake's shores.

The adjacent building to the east of the Project site, at 522-526 Grand Avenue, is a Craftsman-Tudor Revival house, built around 1915 and designed by noted architect Julia Morgan. Its historic name is the Morse House. The building has a hip roof and dormer, symmetrical façade, side entry with balustrated porch, and shallow bay. It has an ornamental sash and brick chimney. There have been visible alterations in the past 30 years, including some windows changed, an added entry, and a rear addition.

This property has received an OCHS rating of B+/1+. A rating of "B" means the site is of major importance, particularly for its design quality and type/style, historical associations and designer.[20] A rating of "1" refers to its location in an API (the Lake Merritt District), and the "+" refers to the fact that the property is a contributor to the District's status as an API. This adjacent property has been placed on the City of Oakland Preservation Study List by the Oakland Landmarks Preservation Advisory Board. The property has thus been identified as significant in an historic resource survey, meeting the criterion in CEQA Guidelines 15064.5 (a)(2) for definition as an historical resource. In addition, the building "appears eligible for the National Register of Historic Places" under criterion C, architecture (it was designed by Julia Morgan), and under criterion B, persons, for its original owner-occupant Dr. Frederick Morse. This adjacent property appears to be eligible both individually (NRHP Status Code 3) and as a district contributor (NRHP Status Code 3D).[21]

The Project is also near but not within two Areas of Secondary Importance as identified by the OCHS: the Lagunitas-Euclide-Van Buren district, which contains buildings mostly dating from the 1900s-1940s, and the Bellevue-Staten Apartment District, which is a group of ten buildings in early 20th centry Revival styles which face across Bellevue Avenue (2 blocks west of Euclid) to Lakeside Park and Lake Merritt.

The Historic Element of the City's General Plan requires that at least two-thirds of the properties in an API must be contributors to that API, i.e. they reflect the API's principal historical or architectural themes and have not had their character changed by major alterations. Compliance with applicable SCA CUL-1 regarding construction best management practices for the Project, and SCA NOI-3 regarding vibration effects on adjacent historic structures will ensure that adverse impacts to this historic resource are avoided. Therefore, because the parking lot at 500 Grand is not itself a contributor to the API, replacing it without damaging the contribution of the adjacent contributing structure at 522-526 will not contribute to a lower ratio of contributing structures within the Lakeshore Historic District.

In addition, as described in Section VII: Aesthetic Impacts, the Project's shadows would not adversely affect the resource's historic integrity as an example of period architecture, or its

[20] Oakland Cultural Heritage Survey, Building, Structure, and Object Record, 522-526 Grand, Serial No. 323, 9/30/96

[21] Information provided in personal communication with Betty Marvin, Planner at the Oakland Cultural Heritage Survey, Septumber 15, 2016. Codes refer to the California Historical Resource Status Codes. Accessed at http://ohp.parks.ca.gov/pages/1069/files/chrstatus%20codes.pdf. Septumber 15, 2016.

contribution to the Lake Merritt Historical District, an Area of Primary Importance within which it is located, because the historic and architectural features which define its contribution to the District are not dependent on, or impaired by, unrestricted sunlight.

Therefore, development of the Project will not impair the significance of the Lake Merritt Historic District, because it will not remove or impair any contributing landscape architectural features or structures of high architectural integrity, or adversely impact public uses of the Lake.

Archaeological and Paleontological Resources and Human Remains

The site would be excavated to approximately only one (1) foot below grade over the majority of the site, but up to 14 feet below grade along Burk Street. Given its proximity to Lake Merritt, the site could potentially contain artifacts of Ohlone village life, although there have been several previous excavations on the site since 1988, during which no finds were reported. Conservatively, SCA CUL-2 would apply. This SCA requires preparation of a construction "ALERT" sheet developed by a qualified archaeologist for review and approval by the City prior to soil-disturbing activities occurring on the Project site. The ALERT sheet shall contain, at a minimum, visuals that depict each type of artifact that could be encountered on the project site. The SCAs related to archaeological and paleontological resources and human remains identified here and in the HE EIR would reduce any potential impacts to a less-than-significant level.

An examination of the analysis, findings, and conclusions of the HE EIR finds that implementation of the Project would not substantially increase the severity of significant cultural resource impacts that were identified in the HE EIR, nor would it result in new significant impacts related to cultural resources that were not identified in the HE EIR. The 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 (SCA-CUL-1: Archaeological and Paleontological Resources – Discovery During Construction; SCA CUL-2: Archaeologically Sensitive Areas—Pre-construction Measures; and SCA-CUL-3: Human Remains – Discovery During Construction).

Geology, Soils, and Geohazards

Would the project:	Equal or Less Severity of Impact Previously Identified in HE 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.	☒	☐	☐

Housing Element EIR & LUTE EIR Conclusions

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

The HE EIR determined that very strong ground shaking and associated liquefaction in certain soils could expose people to injury or harm during earthquakes. The closest active fault to the is the Hayward fault, which runs to the east along Highway 13 and I-580 and is more than two miles away at its nearest point. The Hayward fault is designated by the Alquist-Priolo Earthquake Fault Zoning Act as an active fault. The San Andreas fault, located as close as 14 miles southwest of the City along the San Francisco Peninsula, was the source of the two major earthquakes in recent history that affected the San Francisco Bay region. The Calaveras fault, located about 15 miles east of the City at its closest point, is a major active fault that has been the source of several moderate magnitude earthquakes. Other major faults in the Bay Area that could rupture include the Concord-Green Valley, and Marsh Creek-Greenville faults. Seismic activity along any of these faults could create hazards such as ground shaking and liquefaction.

The HE EIR concluded that compliance with the City's SCAs GEO-1 and GEO-2 would result in less-than-significant exposures of people and structures to the hazards of groundshaking from

earthquakes and surface rupture on a known earthquake fault. 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.

Compliance with the Oakland Building Code and the City's SCAs would result in less-than-significant exposures of people and structures to the hazards of landsliding and liquefaction through the regulation of design of future development within the City.

Project Analysis and Conclusion

Subsurface investigations on the 500 Grand Avenue property have documented native soils to include fine-grained materials such as clays and silts, along with varying amounts of coarser materials, including sands and gravels. The underlying geology consists of unconsolidated sediments of Quaternary age, including early-Pleistocene Santa Clara Formation, late-Pleistocene Alameda Formation, early-Holocene Temescal Formation and artificial fill. The average depth of the unconsolidated sediments is approximately 1,000 feet. Ground water underlying the site has been encountered at depths ranging from less than 1 foot to 16.5 feet bgs. The ground water flow direction has consistently been measured towards the south-southeast, towards Lake Merritt.

Liquefaction maps of the City indicate that areas at the margins of Lake Merritt are susceptible to liquefaction.[22] Pursuant to SCA GEO-2, the Project applicant is required to provide a soils report that contains, 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 soils report will further detail and clarify the risks of seismic shaking, liquefaction, and subsidence at the Project site. If the soils report reveals that the site is located in a Seismic Hazards Zone per the State Seismic Hazards Mapping Act (pertaining to seismically-induced liquefaction), then the Project will also be subject to SCA GEO-3: Seismic Hazards Zone (Landslide/Liquefaction).

The Project is required to comply with the requirements of California Building Code, Seismic Hazards Mapping Act, and the City's SCAs (GEO-1 and GEO-2), which ensure implementation of recommendations from an approved soil report to prevent exposure of people or structures to substantial risk of loss, injury, or death.

The Project would require excavation of up to 1,530 cubic yards of soil. 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 Project to comply with local and state construction requirements, including the California Building Code, in the design and building of the Project.

[22] Liquefaction Hazard Map of Alameda, Berkeley, Emeryville, Oakland, and Piedmont, California: A Digital Database by Thomas L. Holzer, Michael J. Bennett, Thomas E. Noce, Amy C. Padovani and John C. Tinsley, III. Accessed 9/14/2016 at http://pubs.usgs.gov/of/2002/of02-296/of02-296_2liq-sg.pdf.

Based on an examination of the analysis, findings, and conclusions of the HE EIR, implementation of the Project would not substantially increase the severity of significant geologic impacts identified in the HE EIR, nor would it result in new significant impacts related to geology, soils, and geohazards that were not identified in the HE EIR. The HE EIR did not identify any mitigation measures related to geology, soils, and geohazards, and none would be needed for the Project. SCAs related to required construction-related permits and submission of a soils report would apply, as identified in Attachment A (SCA-GEO-1: Construction- Related Permit(s) and SCA-GEO-2: Soils Report).

Greenhouse Gas and Climate Change

Would the project:	Equal or Less Severity of Impact Previously Identified in HE 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 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.	☒	☐	☐

Housing Element EIR & LUTE EIR Conclusions

Greenhouse Gas Emissions (Criterion 6a)

The HE EIR reviewed Climate Change and Greenhouse Gas Emissions (GHG) impacts, and identified motor vehicle use, water, gas, electrical use, loss of vegetation, and construction activities as contributing to generation of GHG emissions. Future projects and development implemented under the HE 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. The construction and operation of residential development proposed under the Housing Element would generate GHG emissions, but the HE EIR found that most individual housing projects would not likely exceed BAAQMD's project-level thresholds of 1,100

MT CO2e/yr and 4.6 MT CO2e/sp/yr[23]; therefore, impacts are considered less than significant.

Identified design features that reduce GHG emissions included construction and demolition waste reduction (as required by SCA UTIL-1), development/redevelopment near transit modes, and energy efficiency (now formalized with the City of Oakland Energy and Climate Action Plan), (SCA UTIL-4).

Given the transportation and energy characteristics of residential projects in Oakland, the HE EIR found that housing developments containing 172 units or less would result in less-than-significant project-level impacts and would not require additional project-specific GHG analysis.

Consistency with Applicable GHG Plans (Criterion 6b)

The HE EIR found that the HE would not conflict with the Bay Area Clean Air Plan and its control measures, which are intended to address both criteria air pollutants and GHG emissions (less-than-significant impact).

At the time of the HE EIR, the City of Oakland was in the process of developing an Energy and Climate Action Plan, which was subsequently adopted including additional GHG reduction targets and plans for reaching those targets on a community-wide basis. The HE EIR indicated that the Energy and Climate Action Plan would most likely further reduce GHG emissions beyond that analyzed in the HE EIR and that development under the HE would be subject to the requirements of the Energy and Climate Action Plan.

Project Analysis and Conclusion

The Project would generate GHG emissions that were previously analyzed under the HE EIR. While mitigation measures were not included in the HE EIR, the Project would be required to comply with applicable SCAs that would reduce GHG emissions. These 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 of a certain minimum size that produce total GHG emissions exceeding one or both of the City's established thresholds of significance, and that would potentially result in a significant impact. The HE EIR analysis showed that residential development projects of less than 172 units would not result in a significant climate change impact and, therefore, no project-specific GHG analysis is required for such projects. Based on the size of the Project at 40 housing units, the Project does not meet the threshold requirements for a GHG Reduction Plan, and a GHG Reduction Plan is not required. Because the Project also includes retail use, the Project was also compared against the screening criteria used by the City of Oakland to provide a conservative indication of whether a project could result in potentially significant GHG emissions. If the screening criteria are not exceeded by a

[23] CO2e – Carbon dioxide equivalents; "SP" refers to service population, which is the total number of employees and residents of a proposed project. Source: BASELINE Environmental Consulting, 2016.

project, quantification of the project's GHG emissions is not necessary to make a determination that the impact will be below the thresholds of significance. The Project's 40 residential units are 46% of the GHG emissions screening size of 87 units for mid-rise residential and the 3,000 square feet of retail is 16% of the GHG emissions screening size of 19,000 square feet of retail. Therefore, the Project is well below GHG emissions screening standard (61%) using screening size and would not have project-specific impacts related to GHG emissions.

GHG emissions would be further reduced through implementation of SCA-UTIL-1 requiring a Construction and Demolition Waste Reduction and Recycling Plan.

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

Hazards and Hazardous Materials

Would the project:	Equal or Less Severity of Impact Previously Identified in HE 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.	☒	☐	☐

Housing Element EIR & LUTE EIR Conclusions

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

The HE EIR found that construction and occupation of housing developed pursuant to the 2007-2014 Housing Element would involve the transport, use, and/or disposal of hazardous materials, including relatively small quantities of hazardous materials for routine purposes such as cleaners, disinfectants, and lawn care chemicals. These commercial products are labeled to inform users of potential risks and provide appropriate handling procedures. Most of these materials are consumed through use, resulting in relatively little waste. The HE EIR concluded that compliance with General Plan Policy HM-1 and Actions HM-1.2 –HM-1.6, along with Chapter 8.12 and 17.100A of the Municipal Code, which are detailed in the HE EIR[24], would further reduce impacts associated with the handling of hazardous materials.

The Housing Element Update (HE Update) 2015-2023 notes that the 1998 EIR of the Land Use and Transportation Element identified over 100 sites in the City of Oakland as being on the state's "Cortese List" of hazardous waste sites (as of 1997) and devoted in excess of fifty (50) pages discussing hazardous materials. The HE Update states:

> More recently, the City Council has adopted Standard Conditions of Approval (Uniformly Applied Development Standards), which, in part, contain measures designed to substantially reduce or eliminate hazardous materials impacts. These Standard Conditions of Approval are applied to all projects, including housing projects. At this time, the City is not aware of anything unique or peculiar about the contamination, remediation or other factors relating to these Housing Opportunity Sites not adequately addressed in the 1998 LUTE EIR or Standard Conditions of Approval. In 2009, California Environmental Quality Act review for the 2007-2014 Housing Element included an Initial Study that also discussed hazardous materials including soil contamination. However, the impacts were found to be less-than-significant with the application of the City's policies in the General Plan, municipal code provisions and standard conditions of approval for development projects[25].

Therefore, impacts associated with hazardous materials transport, use, and disposal were found to be less than significant.

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

The HE EIR concluded that the construction phase of any residential development pursuant to 2007-2014 Housing Element could result in soil or groundwater contamination from hazardous materials used during construction. Compliance with Construction Best Management Practices as detailed in SCA-HAZ-2 is required.

[24] City of Oakland Housing Element 2007-2014: Initial Study, 2010. p. 103.
[25] City of Oakland Housing Element, 2015-2023, p.246.

The HE EIR determined that development under the HE could require excavation for installation of building foundations and underground utilities and that some of the housing opportunity 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 HE 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 HE would be subject to the City of Oakland's SCAs pertaining to hazardous materials in the subsurface (SCA-HAZ-1 through HAZ-3, detailed in Attachment A), 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 HE EIR determined that compliance with these SCAs would reduce 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)

The HE EIR found that if construction of a site within one-quarter mile of an existing school would involve removal or remediation of contaminated soils, groundwater or building materials, an impact could occur. Individual development projects would be required to comply with SCA-HAZ-1 through HAZ-3, as described above. In addition, compliance with SCA-67 would protect workers on the site and would also mitigate impacts beyond the site, including potential impacts to sensitive receptors at nearby schools. Compliance with SCAs, along with General Plan Policy HM-1 and HM-3, and Actions HM-1.2 through HM-1.6, and HM-3.1 through HM-3.4, would mitigate impacts to existing schools to a less-than-significant level. Since the occupation of residential housing does not involve handling of acutely hazardous substances or wastes, once construction is complete, the proximity of residential development(s) would have a less-than-significant impact to existing or proposed schools.

Emergency Access Routes (Criteria 7c)

The HE EIR found that many of the housing opportunity sites identified under the 2007-2014 Housing Element are located along San Leandro Street, International Boulevard, Foothill Road, Broadway, Webster, Telegraph Avenue, San Pablo Avenue, Grand Avenue, and Seventh Street, the major thoroughfares identified as Emergency Evacuation Routes. If construction along these routes inhibited vehicular circulation, an impact could occur. However, road closures during construction are unlikely, and since construction equipment would be minimal and used for only short durations, construction would not change the existing traffic circulation network in the vicinity, and would therefore not affect any emergency response plan or evacuation plan. Therefore, impacts to emergency response plans or emergency evacuation plans would be less than significant.

Project Analysis and Conclusion

The Project would be required to follow all applicable laws and regulations related to transportation, use, and storage of all hazardous materials and to safeguard workers and the general public. To the extent that demolition of the structure at 403 Burk Street involves asbestos and/or lead paint, the Project would be required to comply with SCA HAZ-4: Asbestos in Structures, which requires the applicant to comply with all applicable laws and regulations regarding demolition and renovation of asbestos containing materials (ACMs), and SCA-HAZ-1: Hazardous Materials Related to Construction. These SCAs require implementation of best management practices for hazardous materials and the removal of asbestos from structures, respectively.

One of the parcels within the Project site (site address 500 Grand Avenue) is on the State "Cortese" list as an open site assessment case for gasoline leakage. The site is listed on the State's Department of Toxic Substances Control Geotracker website (Geotracker Global ID T10000007707).

The property was an active commercial service station from at least 1946 until closure in 1991. The service station was demolished in 1992 and remaining underground petroleum storage tanks (USTs), piping, and fuel dispensers were removed at that time. A significant portion of the property was over-excavated after demolition to remove impacted soils. Prior reports (Conestoga-Rovers 2009) indicate the excavation was approximately 7 to 9 feet deep. Preliminary environmental investigations and remedial actions were initiated in 1988 and continued intermittently through 2011, when site closure was approved (fuel leak case RO0000391) by Alameda County Department of Environmental Health (ACDEH). Terms of the closure approval limited future land use to commercial development, and required future excavation and construction activities in potentially impacted areas be implemented by the developing party with "appropriate health and safety procedures." The case was reopened in order to assess current conditions in advance of proposed redevelopment. It is now Site Cleanup Program Case No. RO0003175.

In compliance with the SCA-HAZ-2: Site Contamination, a Phase I and Phase II Environmental Site Assessment (ESA) were completed for the site. As a result of the findings of the Phase II ESA, subsequent further investigations have been conducted and a Site Management Plan (SMP) has been conditionally approved by the Alameda County Department of Public Health[26] that provides a plan to prevent or minimize human exposure to soil, groundwater, and soil vapor which may contain chemicals of potential concern (COPC) at the site. The SMP was prepared to govern all future intrusive work at the site such as soil grading, excavation, recompaction, trenching and backfilling activities. The Site Management Plan is included as Attachment D. See Figure 12 for depiction of the findings.

[26] Conditional approval was granted in a letter from ACDEH dated July 27, 2016.

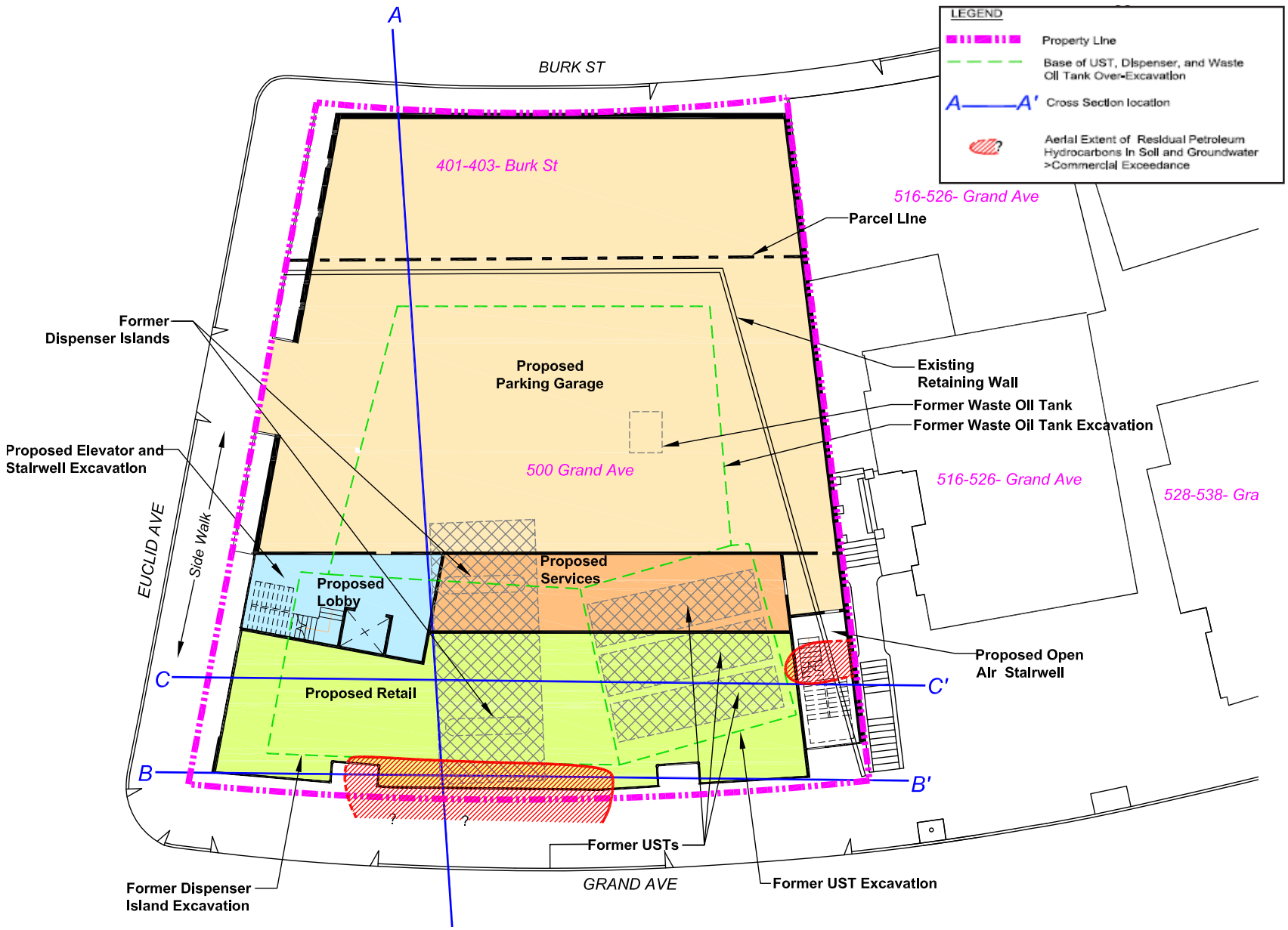


Figure 12
Residual Petroleum Hydrocarbons in Groundwater

Source: SGI, Site Management Plan (SMP), 2016

Summary of Current Environmental Conditions

Multiple environmental investigations have been conducted at the site including soil. groundwater, and soil vapor sampling, with associated laboratory analysis. The majority of investigation activities occurred prior to remediation of the site in 1988, during which time 73% of the site was excavated. The remediation of the site by over-excavation was successful in removing residual petroleum hydrocarbon concentrations to less than the California Regional Water Quality Control Board (CRWQCB) commercial environmental screening levels (ESLs) with the exception of a single area on the site. The Human Health Risk Assessment (HHRA)[27] indicated that residual petroleum hydrocarbons are present in soil adjacent to Grand Avenue and in the groundwater adjacent to Grand Avenue and the southeast corner of the site. These contaminants do not present risks to future occupants of the Project but could present risks to construction workers during foundation excavation activities.

TPHd and naphthalene concentrations in soil samples, limited in extent to the soil locations of contaminated soil, are not a concern, as the proposed multi-story building will cover the entire site and preclude any direct contact with soil. Construction workers will be in direct contact with the soil and complete an exposure pathway. Howevery, TPH, VOCs, and SVOCs were not detected at concentrations exceeding the soil ESLs for construction activity. Therefore, soil does not pose a human health risk to onsite construction workers. During redevelopment of the site, construction activities will be managed consistent with the SMP.

For groundwater, the only potential complete exposure pathway is inhalation of vapors volatilizing from groundwater into indoor air or direct contact/ingestion/inhalation during construction. The groundwater sample that exceed commercial ESL standards for benzene and ethylbenzene was collected in the area where the Project proposes to construct an external open air stairwell. This open air stairway will not complete an exposure pathway to the indoor air in upper residential floors. Therefore, groundwater does not pose a human health risk to potential onsite resident receptors. However, the potential for construction workers to come into contact with soil vapor from impacted groundwater does exist, and is addressed by preventive measures in the Site Management Plan.

The Site Management Plan includes soil management procedures to minimize risks to human health and the environment from identified chemicals during future redevelopment and/or intrusive activities at the site such as soil grading, excavation, recompaction, trenching and backfilling activities and utility repair. These precautions will include the following:

- Implementation of construction impact mitigation measures, including control of dust generation at the site, decontamination of equipment, and prevention of storm water runoff; and
- Establishment of procedures to: (1) manage soil and groundwater on the site during construction and (2) characterize soil if it is found to contain concentrations of TPH or VOCs in excess of ESLs for land use consistent with the planned development.

In addition, the following actions are included in the Site Management Plan (these are detailed further in the SMP, Attachment D):

[27] Supplemental Site Investigation Report, SGI, May 2016

- Removal of residual petroleum hydrocarbon in the soil adjacent to Grand Avenue coincident with the foundation excavation (approximately 23 cubic yards of soils that exceed the commercial ESLs will be removed).
- Removal of residual petroleum hydrocarbon in the soil adjacent to Grand Avenue and beneath the foundation (soils that also exceed the commercial ESLs, locate between the edge of the prior dispenser island excavation and the edge of the proposed foundation footer).
- Confirmation soil sampling during foundation excavation
- Preparation of a site-specific Health and Safety Plan, inclusive of:
    - Soil management protocols for excavating and handling soil at the site;
    - Soil testing and analytical protocol;
    - Handling procedures for contaminated soil;
    - Minimizing soil and groundwater contact by construction workers;
    - Groundwater and dewatering activity management;
    - Site control;
    - Vapor Monitoring;
    - Dust Control Measures;
    - Decontamination; and
    - Stormwater pollution controls

ACDEH is responsible for ensuring that the Project would not present an unacceptable risk to human health or the environment, and their review of the detailed project design, construction methods, and review and final approval of the Site Management Plan would include actions to address known and potentially undiscovered contamination at the site.

Consistent with the requirements of CEQA, this document provides a determination of whether the Project would have a significant impact. Where applicable, Standard Conditions of Approval and/or mitigation measures in the HE EIR have been identified that serve to mitigate potential impacts. In some instances, exactly how the measures/conditions identified will be achieved awaits completion of future studies, an approach that is legally permissible where measures/conditions are known to be feasible for the impact identified, where subsequent compliance with identified federal, state or local regulations or requirements apply, where specific performance criteria is specified and required, and where the Project commits to developing measures that comply with the requirements and criteria identified. In this case, the studies required pursuant to SCAs and regulatory requirements for hazardous materials have been completed (i.e, the Phase I and Phase II ESAs, the 2016 Supplemental Investigation Report, and the Site Management Plan). Implementation of the recommendations and requirements of these studies, under the jurisdiction of the ACDEH, will ensure that impacts related to hazardous materials will be less than significant.

The HE EIR determined that the potential risks related to hazardous materials use in the vicinity of schools would be less than significant given incorporation of SCAs and other existing regulatory requirements. Since the Project is required to comply with these same SCAs and regulatory requirements, potential risks to other sensitive receptors will be similarly less than than significant. The Project would not change the surrounding streets or roadways, or limit emergency access or plans. Any temporary roadway closures required during construction of

the Project would be subject to City of Oakland review and approval, to ensure consistency with City of Oakland requirements.

Based on an examination of the analysis, findings, and conclusions of the HE EIR, implementation of the Project would not substantially increase the severity of significant impacts identified in the HE EIR, nor would it result in new significant impacts related to hazards and hazardous materials that were not identified in the HE EIR. The HE EIR did not identify any mitigation measures related to hazards and hazardous materials, and none would be needed for the 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 Project, as identified in Attachment A at the end of the CEQA Checklist (SCA-HAZ-1: Hazardous Materials Related to Construction, SCA-HAZ-2: Site Contamination, and SCA-HAZ-3: Hazardous Materials Business Plan).

Hydrology and Water Quality

Would the project:	Equal or Less Severity of Impact Previously Identified in HE 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 HE 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.	☒	☐	☐

Housing Element EIR & LUTE EIR Conclusions

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

The HE EIR found that the construction activities for identified housing sites would generate stormwater runoff and potentially increase sewage requiring treatment at the wastewater treatment facility. Therefore, the applicable NPDES permits, which also serve as Waste Discharge Requirements (WDRs), include the Municipal NPDES permit for stormwater discharges (Alameda Countywide NPDES Municipal Stormwater Permit Water Quality Order No. R2-2003-0021, NPDES No. CAS0029831) and discharges from the municipal wastewater treatment facilities (Waste Discharge Requirements for the East Bay Municipal Utility District, Special District No. 1 Wet Weather Facilities (WWFs) Alameda and Contra Costa Counties Water Quality Order No. R2-2009-0004, NPDES N0. CA0038440, and U.S. HUD Oakland City of Housing Authority). These housing sites would primarily involve residential land development and replacement of existing commercial uses, and would not include new or increased industrial or commercial uses within the City of Oakland. Therefore, the Industrial General Permit WDR would not be violated.

Following construction activities, new housing development would increase land use density and is expected to create additional impervious surfaces. New development and new impervious surfaces were expected to increase the amount of stormwater runoff and the amount of pollutants in stormwater runoff. Pollutants deposited on impervious surfaces are more likely to be transported in runoff than pollutants deposited on pervious surfaces; reduced contact with soil and vegetation does not allow for as much sorption (both adsorption and absorption), degradation of pollutants (biological, physical, and chemical), and infiltration.

However, potential impacts associated with housing development will be minimized by the following:

- General Plan policies detailed in the HE EIR[28].
- Chapter 13.16 of the Municipal Code (Creek Protection, Storm Water Management, and Discharge Control);
- Ordinances 10446 (Sedimentation and Erosion Control) and 10312 (Grading);
- SCAs HYDRO-1 (Erosion and Sedimentation Control) and HYDRO-2 (NPDES C.3 Stormwater Requirements (see Attachment A)

New housing development was not expected to result in discharge of water supply water requiring compliance with the General Permit for discharges or an individual WDR/NPDES permit, unless substantial groundwater dewatering is required. The HE EIR concluded that compliance with the requirements above will reduce impacts to a less-than-significant level by minimizing runoff and erosion, as well as reducing sedimentation and degradation of stormwater and surface water quality during construction activities.

Use of Groundwater (Criterion 8b)

Potable water will be supplied to new housing sites through imported surface water by East Bay Municipal Utility District (EBMUD). Groundwater is generally not used for municipal purposes in the City. Much of the City is developed and covered in 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 pursuant to the HE. Additionally, compliance with the C.3 provisions of the National Pollutant Discharge Elimination System Municipal Regional Permit (Order R2-2009-0074, NPDES Permit No. CAS612008) would require that, to the extent feasible, stormwater runoff be managed by harvesting/reuse, infiltration, biotreatment, and/or vault-based high flow rate media filters.

Flooding and Substantial Risks from Flooding (Criteria 8d)

The Project is not located in the 100-year floodplain, so flooding impacts discussed in the HE EIR do not apply.

Project Analysis and Conclusion

The Project includes retail and parking uses at grade and residential uses above grade, and would disturb an area of 14,308 square feet (approximately 0.33 acres, the size of the entire Project site). The total post-Project impervious surface area would be 12,972 square feet. Because the Project exceeds 10,000 square feet of impervious area it is a "Regulated "Project" pursuant to National Pollutant Discharge Elimination System (NPDES) C.3 stormwater management requirements. As a Regulated Projected, the Project is required to create a Stormwater Management Plan (as detailed in SCA HYD-2), which includes site design, source control, and stormwater treatment measures.

[28] City of Oakland Housing Element 2007-2014: Initial Study, 2010, p. 124-125.

Based on provisions of the City's NPDES Municipal Regional Stormwater Permit, the Project would be classified as High Density Development[29] and would qualify for 100 percent Low Impact Design treatment reduction credits, allowing for 100 percent runoff treatment by either tree-box-type high flowrate biofilters or vault-based high flowrate media filters. The Project design includes 1,992 square feet of biofiltration using flow-through tree-box planters along the western and northern perimeters and within the second floor courtyard, yielding a treatment-to-impervious surface ratio of 15.3% (Figure 13**.**). Since the Project site is relatively flat and largely covered with impervious surfaces, and would remain so under the Project, the Project would not substantially alter drainage patterns or increase the flow of runoff from the site.

A clayey-sand layer with a thickness of several feet has been documented approximately 10 to 15 feet beneath ground surface (bgs), and additional clayey-sand layers were encountered at depths of approximately 5 feet bgs and 20 to 25 feet bgs.[30] Groundwater was encountered at varying depths, ranging from less than 1 foot to 16.5 feet bgs. The groundwater flow direction has consistently been measured towards the south-southeast, towards Lake Merritt. Based on the proposed volume of excavation (up to 1,530 cubic yards of soil), it is unlikely that construction period dewatering would be required for the Project.

The Project site is located outside of the 100-year flood hazard zone,[31] and therefore flooding hazards are not expected to affect the Project.

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

[29] City of Oakland Stormwater Supplemental Form. Based on project parameters, the Project is designated as Special Project Category A, qualifying for 100% treatment using non-Low Impact Development (LID) measures.

[30] Subsurface Investigation Report, Allwest Environmental, December 18, 2015

[31] Federal Emergency Management Agency, 2009. Flood Insurance Rate Map, Alameda County, California and Incorporated Areas, Panel 67 of 725, Map Number 06001C0067G, accessed 9-14-2016.

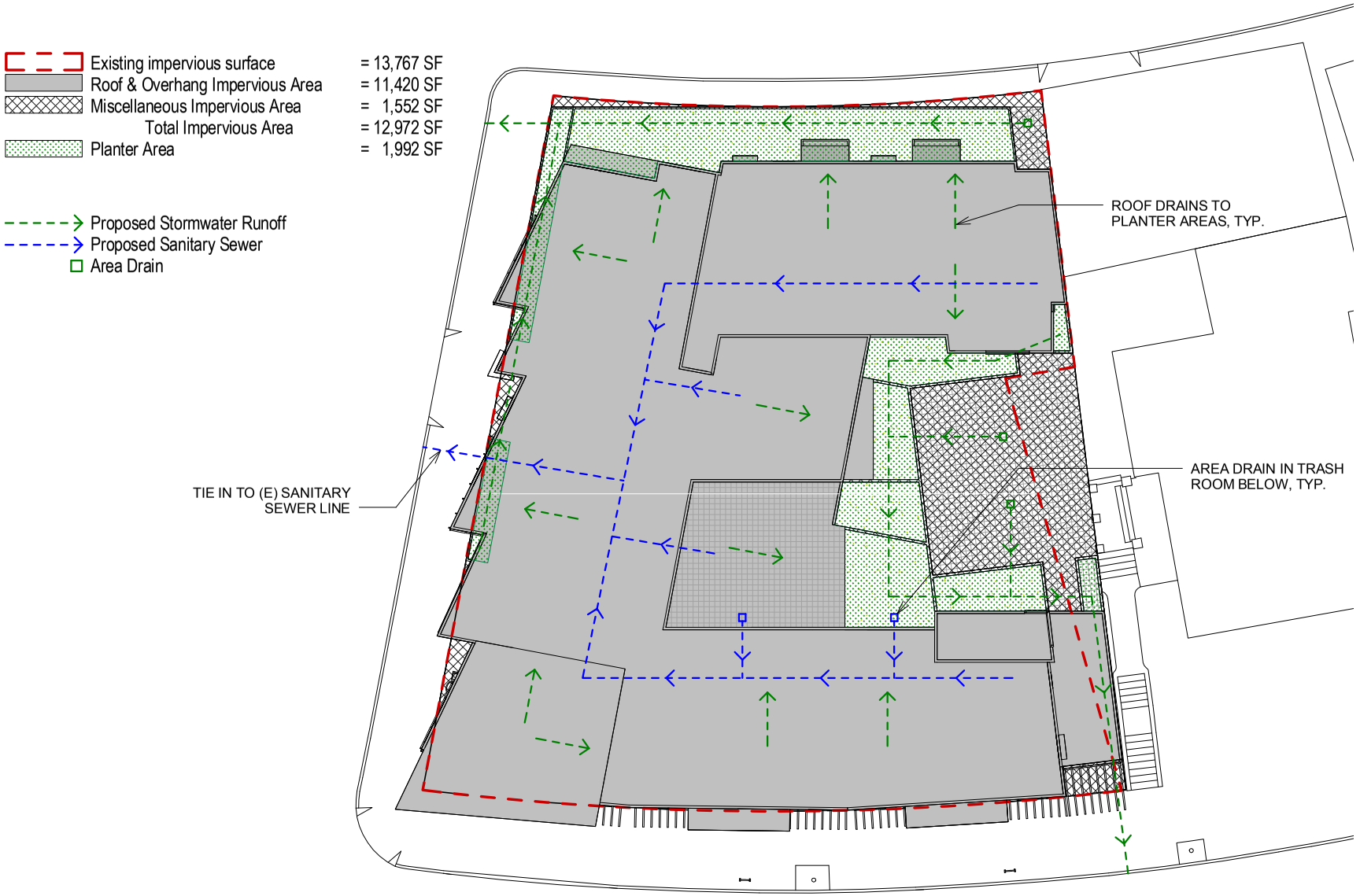


Figure 13
Preliminary Storm Water Management Plan

Source: Kavi Massih Architects

Land Use, Plans, and Policies

Would the project:	Equal or Less Severity of Impact Previously Identified in HE 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.	☒	☐	☐

Housing Element EIR & LUTE EIR Conclusions

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

The HE EIR concluded that no physical barriers would be added that would physically separate future housing sites from their surroundings. Existing land use connectivity and circulation routes within the areas of new housing sites would be maintained, and no new roadways that could divide a community would be constructed as a result of the 2007-2014 Housing Element. Therefore, no division of communities would occur.

With respect to land use conflicts, the HE EIR noted that one method used to identify housing sites for the 2007-2014 Housing Element was by mapping areas throughout the City that allow residential uses at 30 units or greater. These areas occur mostly along major corridors and in the downtown, which are areas planned for high-density and mixed-use development in the General Plan. Since the housing sites were identified based on the location of existing residential areas, the 2007-2014 Housing Element would not conflict with existing uses and would be consistent with the actual land uses in the vicinity. In addition, development under the 2007-2014 Housing Element would comply with policies and regulations outlined in the General Plan and the LUTE EIR regarding conflicts with nearby or adjacent land uses (including Policies I/C4.1, N3.4, N3.11, N4.4, N5.2, N7.2, N7.5, N9.7, N11.6, and Objectives N8, and N9); Municipal Code (Title 17); and SCAs[32] to ensure that development under the 2007-2014 Housing Element would not conflict with adjacent land uses, divide an existing community, or

[32] City of Oakland Housing Element 2007-2014: Initial Study, 2010, pp. 152-154.

conflict with applicable land use policies. As such, the HE EIR concluded that new housing development pursuant to the HE would have a less-than-significant impact with regard to land use.

Project Analysis and Conclusion

The Project site's General Plan classification is Neighborhood Center Mixed Use (CN). The intent of the CN classification is to enhance the character of established neighborhood commercial centers that have a compact, vibrant pedestrian environment. The centers are typically characterized by smaller scale, pedestrian-oriented, continuous and active store fronts with opportunities for comparison shopping, with mixed use development at residential densities of up to 125 units per gross acre. The Project site's zoning designation is Neighborhood Center-2 (CN-2)/S-12. The intent of the CN-2 zone is to enhance the character of established neighborhood centers; it permits non-ground floor residential uses at a density of 450 square feet of lot area per unit. The CN-2 zone allows for a building height of 45 feet. The S-12 Combining Zone is intended to ensure adequate off-street parking in high-density residential neighborhoods and adjacent commercial areas to alleviate on-street parking congestion by increasing off-street parking requirements for new residential development.

As discussed in detail in Attachment B, the Project is consistent with the General Plan, the zoning designation, and the Planning Code requirements of Section 17, including the use of density bonuses and concessions/incentives (for exceeding the allowed height) available for dedicating a portion of the residential units (in this case, 12.5%) as affordable to low-income residents. As proposed, the Project is consistent in design with the character of nearby recent development (including the AveVista Apartments one block west on Grand Avenue). Therefore, the Project would be consistent with the land use plans and policies for the site.

Based on the above, the Project would be consistent with the land use regulations in the HE. Based on an examination of the analysis, findings, and conclusions in the HE EIR, implementation of the 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 land uses, plans, or policies that were not identified in the HE EIR.

Noise

Would the project:	Equal or Less Severity of Impact Previously Identified in HE 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 recommended 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);	☒	☐	☐
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	☒	☐	☐

Would the project:	Equal or Less Severity of Impact Previously Identified in HE EIR	Substantial Increase in Severity of Previously Identified Significant Impact in EIR	New Significant Impact
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 (see Figure 1); 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).	☒	☐	☐

Housing Element EIR & LUTE EIR Conclusions

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

The HE EIR concluded that noise from construction equipment associated with new housing development would potentially be excessive at nearby sensitive receptors, depending on their distance from the construction area. Construction activities for units developed under the Housing Element would likely include off- and on-site improvements such as roadways, storm drainage, and utilities, and demolition, site preparation, paving, and building construction. Construction activities associated with each phase of development would involve the use of construction equipment and small power tools, generators, and other equipment that are sources of noise. During each phase of construction there would be a different mix of equipment operating, and noise levels would vary based on the amount of equipment in operation and the location of the activity.

These noise levels would diminish rapidly with distance from the construction activity at a rate of approximately 6 dBA per doubling of distance. Compliance with the City's SCAs (NOI-1 through NOI-4) would restrict noise-generating activities to the daytime hours, reduce noise levels from construction activities, and provide nearby residents notification of construction activities and complaint procedures. Compliance with these measures would reduce construction noise impacts from development under the Housing Element to a less-than-

significant level.

Traffic Noise (Criterion 10c)

Traffic noise is of most concern in areas where sensitive noise receptors, such as residential units, are adjacent to high-traffic roadways. Based on the traffic analysis prepared for Housing Element EIR, existing and future noise levels were modeled using the FHWA traffic noise model (Grand Avenue was not modeled in this analysis). In almost all cases, existing traffic noise at average building setbacks from the streets currently exceeds the City of Oakland's 65 dBA Ldn "Normally Acceptable" level for multi-family residential use. The HE EIR concluded that traffic noise levels will increase over time, but will remain below the City's 75 dBA Ldn "Clearly Unacceptable" level for multi-family residential use, in all cases. The LUTE EIR identified the segment of Grand Avenue from I-580 to Harrison as potentially having noise levels over 70dB by 2015. However, Plan-related traffic increases were based on anticipated growth rates for the City overall. Noise increases associated with this traffic growth would be 2 dBA or less throughout the City. HE-related traffic noise increases were also less than the normally-perceptible threshold of 5 dBA, and therefore less-than-significant.

In all cases, including where a proposed Housing Site is adjacent to a high-volume roadway, it would be required to comply with the SCA-NOI-6: Exposure to Community Noise, which would include project design measures to reduce interior noise to acceptable levels within the buildings. Thus, compliance with this SCA would reduce impacts to a less-than-significant level.

Vibration

Construction vibration has the potential to cause structural damage. The damage thresholds shown in the HE EIR, in terms of peak particle velocity (PPV), indicate that for buildings not extremely sensitive to vibration, a damage threshold of between 0.2 in/sec to 0.5 in/sec would apply depending on the type of building. As further noted in the HE EIR, vibration levels from construction (including pile driving) would diminish quickly with distance and would be below 0.2 in/sec at a distance of 100 feet. Therefore, most buildings would be exposed to vibration below the damage criteria. However, if fragile historic buildings are nearby, there is the potential for damage, especially during pile driving. Compliance with SCA-NOI-8 would protect fragile historic buildings during construction and would reduce the potential for damage to a less-than-significant level.

Project Analysis and Conclusion

Construction activities for the Project are expected to occur over approximately 24 months, and would consist of phases including demolition, excavation, below-grade and above-grade construction. However, there is nothing unique or peculiar about the Project's construction activities that would substantially increase the level of significance of construction noise impacts over those identified in the HE EIR, or result in new significant construction noise impacts not previously identified. The Project does not propose to use pile-driving. In addition, the 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).

The Project is located adjacent to 522-526 Grand Avenue, which is considered a significant historic resource under CEQA. Its exterior walls are stucco and half-timbering; the structure is wood-frame and brick-bearing wall. The Project applicant will be required to comply with SCA-NOI-8, which requires the applicant to submit a Vibration Analysis prepared by an acoustical and/or structural engineer or other appropriate qualified professional, for City review and approval, and to establish pre-construction baseline conditions and threshold levels of vibration that could damage the structure and/or substantially interfere with activities conducted at the property, which is currently in use as multiple office space. The Vibration Analysis shall identify design means and methods of construction that shall be utilized so that the thresholds are not exceeded. Design considerations may include operating heavy-construction equipment as far away from vibration-sensitive sites as possible and not performing demolition, earth-moving, and other ground-impacting operations simultaneously. The applicant shall implement the recommendations of the Vibration Analysis during construction. With implementation of SCA NOISE-8, impacts to the adjacent structure will be minimized.

During operation of the Project, noise from increased residential and retail traffic, including truck deliveries, would be generated. However, there is nothing unique or peculiar about the Project's traffic that would be anticipated to substantially increase the severity of significant traffic noise impacts identified in the HE EIR or result in new significant traffic impacts. The Project would be required to implement SCA-NOI-5: Operational Noise, which requires 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. With the implementation of SCA-NOI-5, the Project would not violate the City of Oakland operational noise standards and noise generated by mechanical equipment and delivery trucks at the site would be less than significant, consistent with the finding in the HE EIR.

The Project site has substantial frontage along Grand Ave, a high volume roadway with noise levels likely within the conditionally acceptable range for residential uses. Therefore, SCA-NOI-6: Exposure to Community Noise conservatively applies to the Project, and requires a noise reduction plan prepared by a qualified acoustical engineer that contains noise reduction measures (e.g., sound-rated window, wall, and door assemblies) required 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 is not located adjacent to any active rail line and the SCA pertaining to exposure of new dwelling units to vibration (Exposure to Vibration) would not apply.

Implementation of the City's SCAs would lessen the impacts of construction period noise, minimize potential adverse vibration effects from Project-related construction activities, require compliance with City of Oakland operational noise standards including for noise generated by the HVAC systems and delivery trucks, and require the incorporation of noise reduction measures into the building's design.

With the implementation of the required SCAs listed above and included in Attachment A (SCA-NOI-1: Construction Days/Hours, SCA-NOI-2: Construction Noise, SCA-NOI-3: Extreme Construction Noise, SCA-NOI-4: Project-Specific Construction Noise Reduction Measures, SCA-NOI-5: Construction Noise Complaints, SCA-NOI-6: Exposure to Community Noise, SCA-NOI-7: Operational Noise, and SCA-NOI-8: Vibration Impacts on Adjacent Historic Structures or Vibration-Sensitive Activities), the Project would not result in significant effects related to noise and vibration.

Based on an examination of the analysis, findings, and conclusions of the HE EIR, the Project would not substantially increase the severity of significant noise impacts identified in the HE EIR, nor would it result in new significant impacts related to noise that were not identified in the HE EIR. The HE EIR did not identify any mitigation measures related to noise, and none would be necessary for the Project. The 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.

Population and Housing

Would the project:	Equal or Less Severity of Impact Previously Identified in HE 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.	☒	☐	☐

Housing Element EIR & LUTE EIR Conclusions

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

The 2015-2023 Housing Element Update provided the following housing numbers: a total of 61 units already constructed or under construction; 4,470 units with planning approvals; and 3,468 units in stages of pre-development. An additional 6,766 units were anticipated to be developed through 2023. These housing numbers equate to the Regional Housing Needs Allocation (RHNA) target for the 2015-2023 Housing Element. The HE EIR Addendum concluded that the growth proposed in the was consistent with the General Plan and would not exceed growth projections in the General Plan.

The HE EIR concluded that, in general, development under the Housing Element would occur on in-fill sites that are currently served with existing infrastructure. Therefore, extension of infrastructure to an under-served area is not anticipated. The HE EIR also found that new housing development could require demolition of existing housing units, but that 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 related to displacement of housing and people.

Project Analysis and Conclusion

The Project would demolish the existing building on the Project site, which houses two personal services businesses. It would construct a new mixed-use building with 40 residential units and approximately 3,000 square feet of retail space. Therefore, the Project is accommodating a net increase of 40 housing units (approximately 100 people)[33] in the City. The Project would employ 12 to 35 construction workers per day on a temporary basis, and approximately 6 workers within the approximately 3,000 square feet of ground-floor retail space.

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

[33] The HE EIR assumed approximately 1.87 residents per dwelling unit. Jobs are calculated using a standard generation rate of 500 square feet per employee.

Public Services, Parks, and Recreation Facilities

Would the project:	Equal or Less Severity of Impact Previously Identified in HE 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.	☒	☐	☐

Housing Element EIR & LUTE EIR Conclusions

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

The HE EIR determined that housing development pursuant to the HE would not result in construction of new library facilities or the need for such facilities. The proposed housing may result in the need for new or expanded fire, police, school, and park facilities. The construction of new or expanded fire, police, school or park facilities could result in adverse environmental impacts. However, all future development would occur pursuant to General Plan policies, Municipal Code regulations, mitigation measures adopted for the LUTE EIR, and the Standard Conditions of Approval (SCA-HAZ-1 through SCA-HAZ-3) that would reduce the potential impact on services to less-than significant levels. 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 Element policies 3.1, 3.3, and 3.10, as identified in the LUTE EIR, 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, Action FI-1, and Action FI-2[34]. No additions or expansions of parks or recreational facilities are proposed under the HE, and no new parks or recreational facilities, or expansion of existing parks or recreational facilities, were determined to be required under the HE.

Project Analysis and Conclusion

The Project would construct 40 residential units and approximately 3,000 square feet of retail space. The Project's increases in demand for public services are consistent with the analysis in the HE EIR, in which the Project site is listed as an Opportunity Site, and the density bonuses that provide for additional units on the site are consistent with the General Plan and Planning Code.

The Project would likely increase student enrollment at local schools. In the HE EIR, a student generation rate was applied to projected housing units, based on the OUSD's Developer Impact Fee Justification Study. That student generation rate is 0.274 students per household.[35] Applied to the Project, this student generation rate would increase school enrollment by 11 students. The study also found that over half of student generation was in the K-5 range; the rest was split between grades 6-8 and 9-12. For the Project, this translates to an increase of 6 students in K-5, and 3 each for middle and upper school.

Pursuant to Senate Bill 50, the Project developer would be required to pay school impact fees, which are established to offset potential impacts from new development on school facilities. Payment of these impact fees is deemed full and complete mitigation.

The Project could also cause a minor increase in demand for police and fire protection services; however, as described in the HE 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 in the Project Description, the Project would provide approximately 6,267 square feet of private open space for the residential uses. This open space would be consistent with the requirements of the HE and the Planning Code and would meet recreational demands associated with the Project.

[34] City of Oakland, 1998. *General Plan*, Land Use and Transportation Element.

[35] School Facility Fee Justification Report for Residential, Commercial & Industrial Development Projects for the Oakland Unified School District December 2012. The rate in the HE EIR was 0.364, based on a 1997 study. For this document, the most recent study in 2012 was used.
http://www.ousd.org/cms/lib07/CA01001176/Centricity/Domain/95/Oakland%20USD%20-Developer%20Fees%20Study.pdf

Based on an examination of the analysis, findings, and conclusions in the HE EIR, implementation of the 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 the provision of public services or park and recreational facilities that were not identified in the HE EIR. The HE 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 Project.

Transportation and Circulation

Would the project:	Equal or Less Severity of Impact Previously Identified in HE 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;	☒	☐	☐

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.	☒	☐	☐

Housing Element EIR & LUTE EIR Conclusions

The HE EIR analyzed transportation and circulation conditions in and around the City under six different scenarios, which represent three time periods (existing conditions, Year 2015, and Year 2035), with and without new HE development, other non-HE development and improvements to the transportation network. For the purposes of this analysis, these scenarios are referred to as: (1) Existing conditions; (2) Existing conditions plus Project (full buildout of the housing proposed under the Housing Element); (3) Cumulative Year 2015 Baseline no project; (4) Cumulative Year 2015 Baseline plus Project; (5) Cumulative Year 2035 no Project; and (6) Cumulative Year 2035 plus Project (full HE development).

The LOS analysis (Appendix E-6) conducted for the HE EIR identified several roadway segments where the LOS would drop from an acceptable LOS to an unacceptable LOS with the addition of HE-generated traffic. The LOS analysis also identified roadway segments that operate or would operate at an unacceptable LOS without HE-generated traffic, where the HE would increase the V/C ratio by more than 0.03. Both of these conditions were considered a significant impact.

The Grand Avenue roadway segment between Harrison and Interstate 580 (labeled Roadway Segment #18, which passes by the Project) was included in the HE EIR traffic analysis. It was projected to operate as indicated in Table 2 with/without the Housing Element buildout:

Table 2. Level of Service (LOS) with/without Housing Element Buildout

Grand Avenue between Harrison and I-580

	Baseline		2015 Cumulative		2035 Cumulative	
	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak
Eastbound	C/C	E/ D	C/C	F/F	C/C	F/F
Westbound	D/D	D/D	F/F	D/D	F/F	D/D

Source: Housing Element EIR, Table 3.2-7, p. 3.2-52.

This impact is discussed in the HE EIR as Impact TR-2. The EIR concluded that Roadway Segment #18 (Grand Avenue between Harrison Street and I-580) would operate at an unacceptable LOS E (V/C 0.97) in the eastbound direction in the PM peak hour in the Existing Plus Project scenario compared to LOS D (V/C 0.92) in the Existing condition. Thus, the addition of HE-generated traffic would cause the LOS to drop from an acceptable to an unacceptable LOS, a significant impact. However, in the 2015 and 2035 cumulative scenarios, this segment operates at an unacceptable LOS with and without the Housing Element buildout.

In its analysis of this roadway segment, the LUTE EIR found that there would be a significant impact to segment operations, dropping to an LOS F. The EIR states, "Increased congestion on Grand Avenue would be due to traffic traveling between the residential hill neighborhoods and Downtown, since this roadway is a primary peak-hour link between these areas and around Lake Merritt."

The LUTE EIR identified specific policies that would encourage the provision of adequate roadway and transit capacity and advocate use of alternative transportation modes, but found that the impact would not be reduced to less than significant. To further reduce impacts, the LUTE EIR identifies Grand Avenue as a Local Transit Street. The network of transit streets is designated to provide transportation alternatives, reduce auto travel and avoid congested operating conditions. Transit priority improvements could result in decreased congestion on this segment. However, the LUTE EIR found that without detailed study of specific future improvements, it is not possible to determine that the level of service would be sufficiently improved to reduce this impact to a less-than-significant level.

Most of Grand Avenue in this segment has two travel lanes in each direction, with left turn pockets, parking, and bike lanes. The area is entirely built-up or has park land adjacent (Lakeside Park). Additional travel lanes would require eliminating parking for merchants along this street, or eliminating the existing bike lanes, which is contrary to City policy.

The HE EIR also identified 36 other significant impacts on Level of Service (LOS) along roadway segments throughout the City.

The HE EIR provides Mitigations Measures TR-1.1 and TR-1.2 to reduce these impacts, but they remain significant and unavoidable.

TR-1.1 Traffic Impact Study (TIS) for Residential Projects. Prior to approval of a development application for a residential development that may impact any roadway segment or intersection identified in the HE EIR as having a significant impact, the project applicant shall retain a qualified traffic engineer to conduct a Traffic Impact Study (TIS), in accordance with then-current City policies and practices, to identify whether the project would contribute additional vehicular trips to a significant traffic impact on a study roadway segment(s) or intersection(s).

The TIS shall be performed in accordance with then-current City policies and practices, and shall generally identify:

1. The number of trips generated by the Project;
2. The mode split for vehicular trips (i.e. the number of generated trips that would be made by private vehicle);
3. The distribution of vehicular trips on local roadways;
4. Based on a quantitative evaluation of the information provided under 1 through 3, above, the City shall make a significance determination of the traffic impact(s) to roadway(s) or intersection(s) resulting from the Project; and
5. If the level of impact identified under 4 would be significant, Mitigation Measure TR-1.2 shall be employed.

TR-1.2 Other Mitigations. Depending on the results of the TIS conducted in TR-1.1, the project applicant's traffic engineer shall evaluate the feasibility of the following broad measures at the intersections identified in TR-1.1 above, and implement those measures determined feasible by the City:

- Install new traffic signals and other roadway improvements that support not only vehicle travel, but all other modes safely to and through the intersection,
- Modify signal operation or phasing,
- Change lane assignment,
- Install bike and pedestrian facilities, and/or
- Optimize signal timing (i.e., adjust the allocation of green time for each intersection approach) for the peak hours.

The above analysis of the Grand Avenue roadway segment demonstrates that potential impacts to this roadway, which passes the 500 Grand Project site, were fully analyzed in the HE EIR.

The HE EIR found that policies in the Land Use and Transportation Element and the Housing Element promote walking and bicycling as alternative modes to driving. Alternate modes would be encouraged because most Housing Sites are within walking distance of retail and employment opportunities as well as transit services, particularly in the Downtown area. The use of bicycle facilities, such as bike lanes, would increase as a result of development under the HE, but this would be in accord with the goals of the Bicycle Master Plan. This would be a beneficial impact from the standpoint of reducing vehicular traffic, which would in turn lead to improved air quality and reduced noise levels.

The HE EIR determined that no significant impacts to transit, pedestrian, bicycle, and other related topics would occur under any of the scenarios.

The HE 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 HE EIR analysis of roadway segments identified as "significantly impacted" was conducted so that, "with respect to project-level impacts, although certain future housing projects would be required to perform traffic studies and must follow the feasible recommendations resulting from such studies, no further CEQA review would be required for identified roadway segments, previously identified impacted intersections, at-grade railroad crossings, and identified State Highways, as the impacts have already been identified as significant unavoidable. Thus, specific housing development projects that result in such significant unavoidable identified roadway segments impacts, previously identified impacted intersections, at-grade railroad crossings impacts, and identified State Highway impacts, would not have to prepare an Environmental Impact Report and/or Mitigated Negative Declaration solely based upon such impacts/recommendations."[36]

As shown in Table 3, the Project would generate approximately 48 net new vehicle trips during the weekday AM peak hour (20 additional inbound and 28 additional outbound) and approximately 38 net new vehicle trips during the weekday PM peak hour (25 additional inbound and 13 additional outbound). The Project is eligible for trip credits of 8.6% based on City of Oakland Transportation Impacts Study Guidelines data for development in an urban environment with a distance greater than one mile from a BART station. Because the Project would not generate 50 new peak hour vehicle trips, its impacts would be considered less than significant and a Transportation Impact Assessment is not required per the City's SCAs.

Table 3. Automobile Trip Generation Summary

Land Use	Units[1]	ITE Code	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Residential	40 DU	220 [2]	266	4	17	21	16	9	25
Restaurant	3.0 KSF	932 [3]	381	18	14	32	18	12	30
Subtotal			647	22	31	53	34	21	55
Non-Auto Reduction (-8.6%)[4]			-56	-2	-3	-5	-3	-2	-5
Subtotal			591	20	28	48	31	19	50
Pass-by-reduction[5]			-75	0	0	0	-6	-6	-12
Net New Project Trips			**516**	**20**	**28**	**48**	**25**	**13**	**38**

1. DU = Dwelling Units, KSF = 1,000 square feet.
2. ITE Trip Generation (9th Edition) land use category 220 (Apartment):
   Daily: T = 6.65*(X)
   AM Peak Hour: T = 0.51*(X) (20% in, 80% out) PM Peak Hour: T = 0.62*(X) (65% in, 35% out)

[36] City of Oakland Housing Element 2007-2014 Draft EIR, 2010, p. 3-2.98

3. ITE Trip Generation (9th Edition) land use category 932 (High-Turnover (Sit-Down) Restaurant): Daily: T = 127.15*(X)
   AM Peak Hour: T = 10.81*(X) (55% in, 45% out)
   PM Peak Hour: T = 9.85*(X) (60% in, 40% out)
4. Reduction of 8.6% assumed based on City of Oakland Transportation Impact Study Guidelines data for development in an urban environment with a distance greater than one mile of a BART Station.
5. PM peak hour pass-by rates based on *ITE Trip Generation Handbook* (3rd Edition). The weekday PM peak hour average pass-by rates for land use category 932 is 43%. Pass-by rates are not applied to the AM peak hour. Half the reduction (21%) is applied to the daily trips.

Source: Fehr & Peers, 2016.

Vehicle Miles Traveled

The City of Oakland recently adopted new thresholds of significance and Transportation Impact Study Guidelines related to transportation impacts, "in order to implement the directive from California Senate Bill 743 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."[37] The new thresholds replace LOS with criteria for vehicle miles traveled (VMT) to determine whether a project causes a significant impact on the environment related to transportation.

The City provides screening criteria for land use development projects, based on project size, project location in a low-VMT area, and project location near transit stations, to apply as an initial step in assessing the potential significance of impacts from VMT. If the project meets any one of the screening criteria, its impacts on transportation are presumed to be less than significant and detailed VMT analysis is not required. The screening guidelines are as follows, accompanied by the applicability of each criterion to the proposed Project:

1. **Presumption of Less Than Significant Impact for Small Projects**--Absent substantial evidence indicating that a project would generate a potentially significant level of vehicle miles traveled, projects that generate fewer than 100 vehicle trips per day generally may be assumed to cause a less-than-significant transportation impact.
   - Project: The Project would generate more than 100 vehicle trips per day (see Table 3 above), so it does not meet the presumption of less than significant impacts based on project size.
2. **Presumption of Less Than Significant Impact for Residential, Retail, and/or Office Projects in Low-VMT Areas**--Residential, retail, and office projects that locate in areas with low VMT, and that incorporate similar features (i.e., density, mix of uses, transit accessibility) will tend to exhibit similarly low VMT. Therefore, maps illustrating areas that exhibit below threshold VMT should be used to screen out residential, office, and retail projects which may not require a detailed VMT analysis[38].

[37] City of Oakland Letter to CEQA and Transportation Consultants Re: Update to CEQA Thresholds of Significance and Transportation Impact Study Guidelines, dated October 17, 2016

[38] For residential projects, a project would cause substantial additional VMT if it exceeds existing regional household VMT per capita minus 15 percent

- Project: Based on the "sample" map of VMT by Transit Area Zones (TAZ) prepared by the City, the Project is in a TAZ that is more than 15% below the regional average (see Figure 14), Therefore, its transportation impacts are presumed less than significant and detailed VMT analysis is not required.

3. **Presumption of Less Than Significant Impact Near Transit Stations**--Presume that residential, retail, and office projects, as well as mixed use projects which are a mix of these uses, proposed within ½ mile of an existing major transit stop or an existing stop along a high-quality transit corridor will have a less-than-significant impact on VMT. This presumption would not apply, however, if project-specific or location-specific information indicates that the project will still generate significant levels of VMT.
   - Project: The Project site is at the intersection of Grand and Euclid Avenues, which is an existing bus stop for AC Transit lines NL and #12; both bus lines meet the criteria that establish the location as a major transit stop per CEQA Section 21064.3 (see Attachment C for further detail). There is no Project-specific or location-specific information which indicates that the Project will generate significant levels of VMT. Therefore, its transportation impacts are presumed less than significant and detailed VMT analysis is not required.

Based on an examination of the analysis, findings, and conclusions of the HE EIR, and application of the City's new thresholds of significance for transportation impacts demonstrating that a further VMT analysis is not required, the Project would not substantially increase the severity of significant traffic impacts identified in the HE EIR, nor would it result in new significant traffic impacts related to transportation and circulation that were not identified in the HE EIR. The Project would be required to implement SCAs related to city review and approval of all improvements proposed in the public right-of-way, and construction traffic and parking management, as identified in Attachment A (SCA-TRANS-1: Construction Activity in the Public Right-of-Way, SCA-TRANS-2: Bicycle Parking, and SCA-TRANS-3: Transportation Improvements).

Per Capita VMT

More than 15% below the regional average

Less than 15% below the regional average

500 Grand A

Utilities and Service Systems

Would the project:	Equal or Less Severity of Impact Previously Identified in HE 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 HE 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.	☒	☐	☐

Housing Element EIR & LUTE EIR Conclusions

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

Wastewater

The HE EIR estimated total water demand associated with the HE to be approximately 3.51 mgd. The HE EIR found that, based on typical wastewater generation figures, approximately 80 percent of the water used by residential units developed under the HE would enter the wastewater system. Thus, wastewater volumes generated by all housing development from the HE would be approximately 2.8 mgd. However, the HE EIR conservatively assumed that an additional 3.51 mgd of wastewater (100% of the water demand) would flow into EBMUD's Main Wastewater Treatment Plant (MWWTP). This additional flow was found to be within the MWWTP remaining capacity of 240 mgd for primary treatment and 88 mgd for secondary treatment (as of 2010). The conservative flow of 3.51 mgd was also found to be within the 20 percent increase in flow that is anticipated by EBMUD for future wastewater treatment. EBMUD's Main Wastewater Treatment Plant (MWWTP) and interceptor system are anticipated to have adequate dry weather capacity to treat the wastewater flows as a result of the Housing Element, provided that the wastewater meets the requirements of the current EBMUD Wastewater Control Ordinance.

However, wet weather flows were discussed in the HE EIR as a concern. As required by a Stipulated Order for Preliminary Relief issued in 2009 by EPA, the State Water Resources Control Board, and the Regional Water Quality Control Board in 2009, EBMUD is conducting extensive flow monitoring and hydraulic modeling to determine the level of flow reductions that will be needed in order to comply with the new zero-discharge requirement at the wet weather

facilities. The schedule for implementation of any new flow allocations has not yet been determined. In the interim, EBMUD has requested that the City require project applicants to incorporate the following measures into development projects: (1) replace or rehabilitate any existing sanitary sewer collection systems to reduce inflow and infiltration (I/I), and (2) ensure any new wastewater collection systems for new projects are constructed to prevent infiltration and inflow (I/I) to the maximum extent feasible. These measures are incorporated as SCA-UTIL-5 and SCA-UTIL-6.

Given the above points, and the incorporation of two SCAs noted above, the additional wastewater generated by future housing is not expected to exceed current wastewater treatment capacity at the MWWTP. Future improvements that have been planned, regardless of the Housing Element, would further increase wastewater treatment capacity and ensure that RWQCB requirements are met. Impacts from housing development pursutant to the HE were found to be less than significant.

Stormwater

The HE EIR noted that construction activities would disturb surfaces and expose underlying soil to wind and water erosion. Construction equipment could also track sediment onto roads and other impervious surfaces to be washed off into storm drains during rain events. Trash and construction materials and spills and leaks from construction equipment could also end up in the storm drain system. These impacts could impair storm drain capacity of they were to occur on a fairly large scale.

The HE EIR concluded that, post-construction, new housing development pursuant to the HE is not expected to increase stormwater flow into the City and Alameda County systems such that there would be a need for expansion or construction of new stormwater facilities. The reason is that most of the housing sites are within an urbanized area that is largely covered by impermeable surfaces already and that is served by the City and Alameda Flood Control and Water Conservation District (ACFCWCD) systems already. Development of new housing in the urban infill sites is not expected to substantially increase impermeable area, and so stormwater flow into the City and ACFCWCD systems should not substantially increase to the extent that new or expanded drainage system infrastructure would be needed. Additionally, new developments are subject to strict design protocols for stormwater runoff.

Comparisons of runoff prior to development are compared with post development runoff to ensure that the development has not resulted in increased flow levels. The City refers each development to ACFCWCD, which reviews the project and imposes mitigation measures if the project exceeds previous stormwater flow. Project plans are reviewed by the Oakland Public Works Agency to make sure that the site design provides for adequate site drainage to moderate water flows to the City's storm drain system located in the public right-of-way. Thus, development of the housing units allowed under the Housing Element would not be expected to result in increased stormwater flow such that expansion or construction of new stormwater systems would be needed. In addition, implementation of SCAs HYD-1 & HYD-2 would ensure that impacts would be less than significant.

Water Supply

East Bay Municipal Utility District (EBMUD) provides potable water for the City. The HE EIR noted that the normal year water supply for 2005 was 222 million gallons per day (mgd) and is expected to increase to 232 mgd by the year 2040, according to the EBMUD's Water Supply Management Program 2040 adopted in October 2009[39].

The HE EIR details the anticipated demands from the cities of Oakland, Berkeley and Alameda as determined in EBMUD's WSMP 2040 demand surveys. Of the aggregated demand shown, total water consumption associated with HE buildout would be approximately 2.51 mgd. This assumes that each residential unit built under the Housing Element would consume approximately 70 gallons per capita per day based on 2.6 persons per household (the HE EIR further notes that residential demand could be as low as 110 gpd per unit with installation of high efficiency water fixtures). This total represents approximately 4.1 percent of the estimated 2020 demands and 3.4 percent of the 2030 demands in those jurisdictions.

Current supply and demand projections shown in the HE EIR[40] conclude that EBMUD has adequate supplies in all years, including single and multiple dry year scenarios. This conclusion assumes that demand reductions of up to 25 percent will be achieved and EBMUD could rely on supplemental dry year supplies from FRWP beginning as early as late 2009 or by spring 2010. As stated above, the incremental increase in demand of 2.51 mgd associated with the Housing Element is assumed to be accounted for in EBMUD's WSMP 2040 study and these demands would not cause EBMUD to seek additional water rights. Further, compliance with the General Plan policies and Action 7.4.2. from the Housing Element along with LEED or green building provisions implemented for each housing project could further reduce the demand contributions associated with the Housing Element. Thus, potable water impacts associated with buildout of the Housing Element, within which the 500 Grand Avenue Project is identified as an Opportunity Site, would be less than significant.

Solid Waste Services (Criterion 14c)

As described in the HE EIR, impacts associated with solid waste would be less than significant. The average annual volume of solid waste produced by a household of Oakland residents in multi-family units was 1,962 pounds in 2008. If disposal and diversion rates remained constant, the increase in solid waste volume associated with new housing units would be 13,244 tons annually. This represents less than one percent of the annual capacity of the Altamont Landfill and Resource Facility, where nonhazardous solid waste in the City is ultimately hauled. Thus, the increase in population associated with the Housing Element would not exceed the capacity of a permitted landfill.

Implementation of SCA-UTIL-1& SCA-UTIL-3 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).

[39] City of Oakland Housing Element 2007-2014: Initial Study, 2010, pp. 201
[40] Ibid., p. 207.

Energy (Criterion 14d)

The HE EIR concluded that new housing development under the HE would result in less-than-significant impacts related to energy standards and use. The HE EIR concluded there are adequate energy supplies to provide for the increase in energy requirements associated with the new residential units planned under the Housing Element, and PG&E can serve the proposed growth in housing units. In the event that additional distribution stations would need to be constructed, these facilities are anticipated to occur in the City, in the vicinity of housing sites. Construction could result in environmental impacts such as loss of trees or erosion impacts. Nonetheless, the City of Oakland has jurisdiction over the PG&E easements. All General Plan policies, Municipal Code regulations, and SCAs would apply to the construction of new energy facilities within the City. These requirements are expected to reduce potential impacts from construction of electric distribution facilities to less than significant.

Developments would be required to comply with the standards of Title 24 of the California Code of Regulations. SCA UTIL-4 pertaining to compliance with the Green Building Ordinance requires construction projects to incorporate energy-conserving design measures.

Project Analysis and Conclusion

As stated in the HE EIR, because EBMUD has planned for improvements to the water treatment system to improve system reliability and accommodate projected growth in its regional service area, the Housing Element would not prompt a need to expand treatment facilities in order to meet its demands. Therefore, because the water demand from the Project is consistent with the Housing Element and the Municipal Code density, and the site is specifically named as a housing Opportunity Site, construction of the Project would not prompt a need to expand treatment facilities in order to meet its demands.

With respect to wastewater, the same conclusion applies. Since the HE EIR concluded that development pursuant to the HE would not impact wastewater treatment facilities, and because the Project is consistent with and identified as an Opportunity Site within the Housing Element and consistent with applicable density requirements, no significant impacts would occur.

With respect to solid waste, the same conclusion applies. Since the HE EIR concluded that development pursuant to the HE would not impact solid waste disposal facilities, and because the Project is consistent with and identified as an Opportunity Site within the Housing Element and consistent with applicable density requirements, no significant impacts would occur.

With respect to energy usage, the same conclusion applies. Since the HE EIR concluded that development pursuant to the HE could be accommodated with existing energy supplies, and the Project is consistent with and identified as an Opportunity Site within the Housing Element and consistent with applicable density requirements, no significant impacts to energy usage or facilities would occur.

Based on an examination of the analysis, findings, and conclusions in the HE EIR, implementation of the 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 the operation of utility services or facilities, including water supply, wastewater treatment, stormwater capacity, solid waste disposal, and energy standards and use, that were not identified in the HE EIR. The HE EIR did not identify any mitigation measures or SCAs related to utilities services or facilities, and none would be required for the Project.

ATTACHMENT A: CITY OF OAKLAND – STANDARD CONDITIONS OF APPROVAL

The City of Oakland's Uniformly Applied Development Standards, adopted as Standard Conditions of Approval (Standard Conditions of Approval, or SCAs), were originally adopted by the City in 2008 (Ordinance No. 12899 C.M.S.) pursuant to Public Resources Code section 21083.3) and have been incrementally updated over time. The SCAs incorporate development policies and standards from various adopted plans, policies, and ordinances (such as the Oakland Planning and Municipal Codes, Oakland Creek Protection, Stormwater Water Management and Discharge Control Ordinance, Oakland Tree Protection Ordinance, Oakland Grading Regulations, National Pollutant Discharge Elimination System (NPDES) permit requirements, Housing Element-related mitigation measures, Green Building Ordinance, historic/Landmark status, California Building Code, and Uniform Fire Code, among others), which have been found to substantially mitigate environmental effects.

These SCAs are incorporated into Projects as conditions of approval, regardless of the determination of a Project's environmental impacts. 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, avoid or substantially reduce a Project's environmental effects.

In reviewing Project applications, the City determines which SCAs apply based upon the zoning district, community plan, and the type of permits/approvals required for the Project. Depending on the specific characteristics of the Project type and/or Project site, the City will determine which SCAs apply to a specific Project. Because these SCAs are mandatory City requirements imposed on a city-wide basis, environmental analyses assume that these SCAs will be imposed and implemented by the Project, and are not imposed as mitigation measures under CEQA.

All SCAs identified in the CEQA Analysis—which are consistent with the measures and conditions presented in the City of Oakland General Plan, Land Use and Transportation EIR (LUTE EIR, 1998)—are included herein. To the extent that any SCA identified in the CEQA Analysis was inadvertently omitted, it is automatically incorporated herein by reference.

- The first column identifies the SCA 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 Project.

In addition to the SCAs identified and discussed in the CEQA Analysis, other SCAs that are applicable to the Project are included herein.

The Project sponsor is responsible for compliance with any recommendations in approved technical reports and with all SCAs set forth herein at its sole cost and expense, unless otherwise expressly provided in a specific SCA, and subject to the review and approval of the City of Oakland. Overall monitoring and compliance with the SCAs 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.

Note that the SCAs included in this document are referred to using an abbreviation for the environmental topic area and are numbered sequentially for each topic area—i.e., SCA-AIR-1, SCA-AIR-2, etc. The SCA title and the SCA number that corresponds to the City's master SCA list are also provided in the Appendix listing—i.e., SCA-AIR-1: Construction-Related Air Pollution (Dust and Equipment Emissions) (#19).

Standard Conditions of Approval	Implementation/Monitoring		
	When Required	**Initial Approval**	**Monitoring/ Inspection**
Aesthetics, Shadow and Wind			
SCA-AES-1: Graffiti Control. (#16) a. During construction and operation of the Project, the Project applicant shall incorporate best management practices reasonably related to the control of graffiti and/or the mitigation of the impacts of graffiti. Such best management practices may include, without limitation: i. Installation and maintenance of landscaping to discourage defacement of and/or protect likely graffiti-attracting surfaces. ii. Installation and maintenance of lighting to protect likely graffiti-attracting surfaces. iii. Use of paint with anti-graffiti coating. iv. Incorporation of architectural or design elements or features to discourage graffiti defacement in accordance with the principles of Crime Prevention Through Environmental Design (CPTED). v. Other practices approved by the City to deter, protect, or reduce the potential for graffiti defacement. b. The Project applicant shall remove graffiti by appropriate means within seventy-two (72) hours. Appropriate means include: i. Removal through scrubbing, washing, sanding, and/or scraping (or similar method) without damaging the surface and without discharging wash water or cleaning detergents into the City storm drain system. ii. Covering with new paint to match the color of the surrounding surface. iii. Replacing with new surfacing (with City permits if required).	Ongoing	N/A	Bureau of Building
SCA-AES-2: Landscape Plan. (#17) *a. Landscape Plan Required* The Project applicant shall submit a final Landscape Plan for City review and approval that is consistent with the approved Landscape Plan. The Landscape Plan shall be included with the set of drawings submitted for the construction-related permit and shall comply with the landscape requirements of	Prior to approval of construction-related permit	Bureau of Planning	N/A

Standard Conditions of Approval	Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
chapter 17.124 of the Planning Code.			
b. Landscape Installation The Project applicant shall implement the approved Landscape Plan unless a bond, cash deposit, letter of credit, or other equivalent instrument acceptable to the Director of City Planning, is provided. The financial instrument shall equal the greater of $2,500 or the estimated cost of implementing the Landscape Plan based on a licensed contractor's bid.	Prior to building permit final	Bureau of Planning	Bureau of Building
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.	Ongoing	N/A	Bureau of Building
SCA-AES-3: Lighting. (#18) 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 (Dust and Equipment Emissions). (#19) The Project applicant 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	During construction	N/A	Bureau of Planning

Standard Conditions of Approval	Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
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.). 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.			
Note: Screening analysis demonstrated that the 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). (#20)** *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 toxic air contaminants. The Project applicant shall choose <u>one</u> 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	Prior to Approval of Construction-Related Permit	Bureau of Planning	Bureau of Building

Standard Conditions of Approval	Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
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			

Standard Conditions of Approval	Implementation/Monitoring		
	When Required	**Initial Approval**	**Monitoring/ Inspection**

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:
  • 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: 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.	Ongoing	N/A	Bureau of Building
Note: No stationary sources of TAC emissions (e.g., backup generator) are proposed for the Project. Thus, no further action is required under this SCA. **SCA-AIR-3: Stationary Sources of Air Pollution (Toxic Air Contaminants). (#21)** 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.	Prior to approval of construction-related permit	Bureau of Planning	Bureau of Building
Biological Resources			
SCA-BIO-1: Tree Removal During Bird Breeding Season. (#26) 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	Prior to removal of trees	Bureau of Building.	Bureau of Building.

Standard Conditions of Approval	Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
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 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 Permit. (#27) *a. Tree Permit Required* 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.	Prior to approval of construction-related permit	Permit approval by Public Works Department, Tree Division; evidence of approval submitted to Bureau of Building	Bureau of Building
b. Tree Protection During Construction Adequate protection shall be provided during the construction period for any trees which are to remain standing, 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	During construction	Public Works Department, Tree Division	Bureau of Building

Standard Conditions of Approval	Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
or within the protected perimeter of any protected tree. iii. No storage or dumping of oil, gas, chemicals, 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.			
c. Tree Replacement Plantings Replacement plantings shall be required for tree removals for the purposes of erosion 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 area exists for a mature tree of the species being considered. **ii.** Replacement tree species shall consist of Sequoia	Prior to building permit final	Public Works Department, Tree Division	Bureau of Building

Standard Conditions of Approval	Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
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.			
SCA-BIO-3 Bird Collison Reduction Measures. (#25) The project applicant shall submit a Bird Collision Reduction Plan for City review and approval to reduce potential bird collisions to the maximum feasible extent. The Plan shall include all of the following mandatory measures, as well as applicable and specific project Best Management Practice (BMP) strategies to reduce bird strike impacts to the maximum feasible extent. The project applicant shall implement the approved Plan. Mandatory measures include <u>all</u> of the following: i. For large buildings subject to federal aviation safety regulations, install minimum intensity white strobe lighting with three second flash instead of solid red or rotating lights. ii. Minimize the number of and co-locate rooftop-antennas and other rooftop structures. iii. Monopole structures or antennas shall	Prior to approval of construction-related permit	Bureau of Planning	Bureau of Planning

Standard Conditions of Approval	Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
not include guy wires. iv. Avoid the use of mirrors in landscape design. v. Avoid placement of bird-friendly attractants (i.e., landscaped areas, vegetated roofs, water features) near glass unless shielded by architectural features taller than the attractant that incorporate bird friendly treatments no more than two inches horizontally, four inches vertically, or both (the "two-by-four" rule), as explained below. vi. Apply bird-friendly glazing treatments to no less than 90 percent of all windows and glass between the ground and 60 feet above ground or to the height of existing adjacent landscape or the height of the proposed landscape. Examples of bird-friendly glazing treatments include the following: • Use opaque glass in window panes instead of reflective glass. • Uniformly cover the interior or exterior of clear glass surface with patterns (e.g., dots, stripes, decals, images, abstract patterns). Patterns can be etched, fritted, or on films and shall have a density of no more than two inches horizontally, four inches vertically, or both (the "two-by-four" rule). • Install paned glass with fenestration patterns with vertical and horizontal mullions no more than two inches horizontally, four inches vertically, or both (the "two-by-four" rule). • Install external screens over non-reflective glass (as close to the glass as possible) for birds to perceive windows as solid objects. • Install UV-pattern reflective glass, laminated glass with a patterned UV-reflective coating, or UV-absorbing and UV-reflecting film on the glass since most birds can see ultraviolet light, which is invisible to humans. • Install decorative grilles, screens, netting, or louvers, with openings no more than two inches horizontally, four inches vertically, or both (the "two-by-four" rule). • Install awnings, overhangs, sunshades,			

Standard Conditions of Approval	Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
or light shelves directly adjacent to clear glass which is recessed on all sides. • Install opaque window film or window film with a pattern/design which also adheres to the "two-by-four" rule for coverage. vii. Reduce light pollution. Examples include the following: • Extinguish night-time architectural illumination treatments during bird migration season (February 15 to May 15 and August 15 to December 30). • Install time switch control devices or occupancy sensors on non-emergency interior lights that can be programmed to turn off during non-work hours and between 11:00 p.m. and sunrise. • Reduce perimeter lighting whenever possible. • Install full cut-off, shielded, or directional lighting to minimize light spillage, glare, or light trespass. • Do not use beams of lights during the spring (February 15 to May 15) or fall (August 15 to December 30) migration. viii. Develop and implement a building operation and management manual that promotes bird safety. Example measures in the manual include the following: • Donation of discovered dead bird specimens to an authorized bird conservation organization or museums (e.g., UC Berkeley Museum of Vertebrate Zoology) to aid in species identification and to benefit scientific study, as per all federal, state and local laws. • Distribution of educational materials on bird-safe practices for the building occupants. Contact Golden Gate Audubon Society or American Bird Conservancy for materials. • Asking employees to turn off task lighting at their work stations and draw office blinds, shades, curtains, or other window coverings at end of work day. • Install interior blinds, shades, or other window coverings in windows above the ground floor visible from the			

Standard Conditions of Approval	Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
exterior as part of the construction contract, lease agreement, or CC&Rs. • Schedule nightly maintenance during the day or to conclude before 11 p.m., if possible.			
Cultural Resources			
SCA-CUL-1: Archaeological and Paleontological Resources – Discovery During Construction. (#29) Pursuant to CEQA Guidelines section 15064.5(f), in the event that any historic or prehistoric subsurface cultural resources are discovered during ground disturbing activities, all work within 50 feet of the resources shall be halted and the Project applicant shall notify the City and consult with a qualified archaeologist or paleontologist, as applicable, to assess the significance of the find. In the case of discovery of paleontological resources, the assessment shall be done in accordance with the Society of Vertebrate Paleontology standards. If any find is determined to be significant, appropriate avoidance measures recommended by the consultant and approved by the City must be followed unless avoidance is determined unnecessary or infeasible by the City. Feasibility of avoidance shall be determined with consideration of factors such as the nature of the find, Project design, costs, and other considerations. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery, excavation) shall be instituted. Work may proceed on other parts of the Project site while measures for the cultural resources are implemented. In the event of data recovery of archaeological resources, the Project applicant shall submit an Archaeological Research Design and Treatment Plan (ARDTP) prepared by a qualified archaeologist for review and approval by the City. The ARDTP is required to identify how the proposed data recovery program would preserve the significant information the archaeological 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 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	During construction	N/A	Bureau of Building

Standard Conditions of Approval	Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
and implementation of the ARDTP would reduce the potential adverse impact to less than significant. The Project applicant shall implement the ARDTP at his/her expense. In the event of excavation of paleontological resources, the Project applicant shall submit an excavation plan prepared by a qualified paleontologist to the City for review and approval. All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and/or a report prepared by a qualified paleontologist, as appropriate, according to current professional standards and at the expense of the Project applicant.			

Standard Conditions of Approval	Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
SCA-CUL-2: Archaeologically Sensitive Areas—Pre-Construction Measures. (#30) Requirement: The project applicant shall implement either Provision A (Intensive Pre-Construction Study) or Provision B (Construction ALERT Sheet) concerning archaeological resources. Provision A: Intensive Pre-Construction Study. The project applicant shall retain a qualified archaeologist to conduct a site-specific, intensive archaeological resources study for review and approval by the City prior to soil-disturbing activities occurring on the project site. The purpose of the site-specific, intensive archaeological resources study is to identify early the potential presence of history-period archaeological resources on the project site. At a minimum, the study shall include: a. Subsurface presence/absence studies of the project site. Field studies may include, but are not limited to, auguring and other common methods used to identify the presence of archaeological resources. b. A report disseminating the results of this research. c. Recommendations for any additional measures that could be necessary to mitigate any adverse impacts to recorded and/or inadvertently discovered cultural resources. If the results of the study indicate a high potential presence of historic-period archaeological resources on the project site, or a potential resource is discovered, the project applicant shall hire a qualified archaeologist to monitor any ground disturbing activities on the project site during construction and prepare an ALERT sheet pursuant to Provision B below that details what could potentially be found at the project site. Archaeological monitoring would include briefing construction personnel about the type of artifacts that may be present (as referenced in the ALERT sheet, required per Provision B below) and the procedures to follow if any artifacts are encountered, field recording and sampling in accordance with the Secretary of Interior's Standards and Guidelines for Archaeological Documentation, notifying the appropriate officials if human remains or cultural resources are discovered, and preparing a report to document negative findings after construction is completed if no archaeological resources are discovered during construction.	Prior to approval of construction-related permit; during construction	Bureau of Building	Bureau of Building

Standard Conditions of Approval	Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
Provision B: Construction ALERT Sheet. The project applicant shall prepare a construction "ALERT" sheet developed by a qualified archaeologist for review and approval by the City prior to soil-disturbing activities occurring on the project site. The ALERT sheet shall contain, at a minimum, visuals that depict each type of artifact that could be encountered on the project site. Training by the qualified archaeologist shall be provided to the project's prime contractor, any project subcontractor firms (including demolition, excavation, grading, foundation, and pile driving), and utility firms involved in soil-disturbing activities within the project site. The ALERT sheet shall state, in addition to the basic archaeological resource protection measures contained in other standard conditions of approval, all work must stop and the City's Environmental Review Officer contacted in the event of discovery of the following cultural materials: concentrations of shellfish remains; evidence of fire (ashes, charcoal, burnt earth, fire-cracked rocks); concentrations of bones; recognizable Native American artifacts (arrowheads, shell beads, stone mortars [bowls], humanly shaped rock); building foundation remains; trash pits, privies (outhouse holes); floor remains; wells; concentrations of bottles, broken dishes, shoes, buttons, cut animal bones, hardware, household items, barrels, etc.; thick layers of burned building debris (charcoal, nails, fused glass, burned plaster, burned dishes); wood structural remains (building, ship, wharf); clay roof/floor tiles; stone walls or footings; or gravestones. Prior to any soil-disturbing activities, each contractor shall be responsible for ensuring that the ALERT sheet is circulated to all field personnel, including machine operators, field crew, pile drivers, and supervisory personnel. The ALERT sheet shall also be posted in a visible location at the project site.			

Standard Conditions of Approval	Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
SCA-CUL-3: Human Remains – Discovery during Construction. (#31) Pursuant to CEQA Guidelines section 15064.5(e)(1), in the event that human skeletal remains are uncovered at the Project site during construction activities, all work shall immediately halt and the Project applicant shall notify the City and the Alameda County Coroner. If the County Coroner determines that an investigation of the cause of death is required or that the remains are Native American, all work shall cease within 50 feet of the remains until appropriate arrangements are made. In the event that the remains are Native American, the City shall contact the California Native American Heritage Commission (NAHC), pursuant to subdivision (c) of section 7050.5 of the California Health and Safety Code. If the agencies determine that avoidance is not feasible, then an alternative plan shall be prepared with specific steps and timeframe required to resume construction activities. Monitoring, data recovery, determination of significance, and avoidance measures (if applicable) shall be completed expeditiously and at the expense of the Project applicant.	During Construction	N/A	Bureau of Building
Geology and Soils			
SCA-GEO-1: Construction-Related Permit(s). (#33) The Project applicant shall obtain all required construction-related permits/approvals from the City. The Project shall comply with all standards, requirements and conditions contained in construction-related codes, including but not limited to the Oakland Building Code and the Oakland Grading Regulations, to ensure structural integrity and safe construction.	Prior to approval of construction-related permit	Bureau of Building	Bureau of Building
SCA-GEO-2: Soils Report. (#34) The Project applicant shall submit a soils report prepared by a registered geotechnical engineer for City review and approval. The soils report shall contain, at a minimum, field test results and observations regarding the nature, distribution and strength of existing soils, and recommendations for appropriate grading practices and Project design. The Project applicant shall implement the recommendations contained in the approved report during Project design and construction.	Prior to approval of construction-related permit	Bureau of Building	Bureau of Building
SCA-GEO-3: Seismic Hazards Zone (Landslide/Liquefaction). (#36) The project applicant shall submit a site-specific geotechnical report, consistent with California Geological Survey Special Publication 117 (as amended), prepared by a registered geotechnical engineer for City review and approval containing at a minimum a description of the geological and geotechnical conditions at the site, an evaluation of site-specific seismic hazards based on geological and geotechnical conditions, and recommended measures to reduce potential impacts related to liquefaction	Prior to approval of construction-related permit	Bureau of Building	Bureau of Building

Standard Conditions of Approval	Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
and/or slope stability hazards. The project applicant shall implement the recommendations contained in the approved report during project design and construction.			
Hazards and Hazardous Materials			
SCA-HAZ-1: Hazardous Materials Related to Construction. (#39) The Project applicant shall ensure that Best Management Practices (BMPs) are implemented by the contractor during construction to minimize potential negative effects on groundwater, soils, and human health. These shall include, at a minimum, the following: 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 If soil, groundwater, or other environmental medium with suspected contamination is encountered unexpectedly during construction activities (e.g., identified by odor or visual staining, or if any underground storage tanks, abandoned drums or other hazardous materials or wastes are encountered), the Project applicant shall cease work in the vicinity of the suspect material, the area shall be secured as necessary, and the applicant shall take all appropriate measures to protect human health and the environment. Appropriate measures 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.	During construction	N/A	Bureau of Building
SCA-HAZ-2: Site Contamination. (#40) **These actions have been completed by the Applicant. No further action required for this Condition.** *a. Environmental Site Assessment Required* The Project applicant shall submit a Phase I Environmental Site Assessment report, and Phase II	Prior to Approval of Construction-Related Permit	Oakland Fire Department	Oakland Fire Department

Standard Conditions of Approval	Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
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.			
b. Health and Safety Plan Required 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.	Prior to Approval of Construction-Related Permit	Bureau of Building	Bureau of Building
c. Best Management Practices (BMPs) Required for Contaminated Sites 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: i. Soil generated by construction activities shall be stockpiled on-site in a secure and safe manner. All contaminated soils determined to be hazardous or non-hazardous waste must be 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. ii. Groundwater pumped from the subsurface shall be contained on-site in a secure and safe manner, prior to treatment and disposal, to ensure environmental and health issues are resolved pursuant to applicable laws and policies. Engineering controls shall be utilized, which include impermeable barriers to prohibit groundwater and vapor intrusion into the building.	During construction	N/A	Bureau of Building

Standard Conditions of Approval	Implementation/Monitoring		
	When Required	**Initial Approval**	**Monitoring/ Inspection**
SCA-HAZ-3: Hazardous Materials Business Plan. (#41) The Project applicant shall submit a Hazardous Materials Business Plan for review and approval by the City, and shall implement the approved Plan. The approved Plan shall be kept on file with the City and the Project applicant shall update the Plan as applicable. The purpose of the Hazardous Materials Business Plan is to ensure that employees are adequately trained to handle hazardous materials and provides information to the Fire Department should emergency response be required. Hazardous materials shall be handled in accordance with all applicable local, state, and federal requirements. The Hazardous Materials Business Plan shall include the following: a. The types of hazardous materials or chemicals stored and/or used on-site, such as petroleum fuel products, lubricants, solvents, and cleaning fluids. b. The location of such hazardous materials. c. An emergency response plan including employee training information. A plan that describes the manner in which these materials are handled, transported, and disposed.	Prior to building permit final	Oakland Fire Department	Oakland Fire Department
SCA HAZ-4: Asbestos in Structures (#23) The project applicant shall comply with all applicable laws and regulations regarding demolition and renovation of Asbestos Containing Materials (ACM), including but not limited to California Code of Regulations, Title 8; California Business and Professions Code, Division 3; California Health and Safety Code sections 25915-25919.7; and Bay Area Air Quality Management District, Regulation 11, Rule 2, as may be amended. Evidence of compliance shall be submitted to the City upon request.	Prior to Approval of Construction-Related Permit	Applicable regulatory agency with jurisdiction	Applicable regulatory authority with jurisdiction
Hydrology and Water Quality			
SCA-HYD-1: Erosion and Sedimentation Control Plan for Construction. (#45) *a. Erosion and Sedimentation Control Plan Required* The Project applicant shall submit an Erosion and Sedimentation Control Plan to the City for review and approval. The Erosion and Sedimentation Control Plan shall include all necessary measures to be taken to prevent excessive stormwater runoff or carrying by stormwater runoff of solid materials on to lands of adjacent property owners, public streets, or to creeks as a result of conditions created by grading and/or construction operations. The Plan shall include, but not be limited to, such measures as short-term erosion control planting, waterproof slope covering, check dams, interceptor ditches, benches, storm drains, dissipation structures, diversion dikes, retarding berms and barriers, devices to trap, store and filter out sediment, and stormwater retention basins. Off-site work by the Project applicant may be necessary. The	Prior to Approval of Construction-Related Permit	Bureau of Building	N/A

Standard Conditions of Approval	Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
Project applicant shall obtain permission or easements necessary for off-site work. There shall be a clear notation that the plan is subject to changes as changing conditions occur. Calculations of anticipated stormwater runoff and sediment volumes shall be included, if required by the City. The Plan shall specify that, after construction is complete, the Project applicant shall ensure that the storm drain system shall be inspected and that the Project applicant shall clear the system of any debris or sediment.			
b. Erosion and Sedimentation Control During Construction Requirement: The Project applicant shall implement the approved Erosion and Sedimentation Control Plan. No grading shall occur during the wet weather season (October 15 through April 15) unless specifically authorized in writing by the Bureau of Building.	During Construction	N/A	Bureau of Building
SCA-HYD-2: NPDES C.3 Stormwater Requirements for Regulated Projects. (#50) *a. Post-Construction Stormwater Management Plan Required* The Project applicant 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 applicant shall submit a Post-Construction Stormwater Management Plan to the City for review and approval with the Project drawings submitted for site improvements, and shall implement the approved Plan during construction. The Post-Construction Stormwater Management Plan shall include and identify the following: 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 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.	Prior to Approval of Construction-Related Permit	Bureau of Planning; Bureau of Building	Bureau of Building
b. Maintenance Agreement Required The Project applicant shall enter into a maintenance agreement with the City, based on the Standard City of Oakland Stormwater Treatment Measures Maintenance Agreement, in accordance with Provision C.3, which provides, in part, for the following: i. The Project applicant accepting responsibility for the	Prior to Building Permit Final	Bureau of Building	Bureau of Building

Standard Conditions of Approval	Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
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 applicant's expense.			
Noise			
SCA-NOI-1: Construction Days/Hours. (#58) The Project applicant 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. 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 applicant shall notify property owners and occupants located within 300 feet at least 14 calendar days prior to construction activity proposed outside of the above days/hours. When submitting a request to the City to allow construction	During Construction	N/A	Bureau of Building

Standard Conditions of Approval	Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
activity outside of the above days/hours, the Project applicant shall submit information concerning the type and duration of proposed construction activity and the draft public notice for City review and approval prior to distribution of the public notice.			
SCA-NOI-2: Construction Noise. (#59) The Project applicant shall implement noise reduction measures to reduce noise impacts due to construction. Noise reduction measures include, but are not limited to, the following: 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 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. Applicant 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.	During Construction	N/A	Bureau of Building
SCA-NOI-3: Extreme Construction Noise. (#60) *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 applicant shall submit a Construction Noise Management Plan prepared by a qualified acoustical consultant for City review and approval that contains a	Prior to Approval	Bureau of Building	Bureau of Building

Standard Conditions of Approval	Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
set of site-specific noise attenuation measures to further reduce construction impacts associated with extreme noise generating activities. The Project applicant shall implement the approved Plan during construction. Potential attenuation measures include, but are not limited to, the following: 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 impacts; and v. Monitor the effectiveness of noise attenuation measures by taking noise measurements. Based on the potential noise impacts from construction equipment to nearby sensitive receptors, the following draft site-specific noise attenuation measures are additionally recommended for inclusion in the Construction Noise Management Plan: • Temporary noise barriers will be placed between the proposed construction activities and nearby receptors. The noise barriers may be constructed from plywood and installed on top of a portable concrete K-Rail system to be able to move and/or adjust the wall location during construction activities. A sound blanket system hung on scaffolding, or other noise reduction materials that result in an equivalent or greater noise reduction than plywood, may also be used. Due to the proximity of the commercial and apartment buildings located at the northern and southern borders of Project site, respectively, the use of Sound Transmission Class (STC) rated materials, or other materials that could similarly provide high levels of noise reduction above what plywood or sound blankets alone could provide, should be incorporated into the design of the noise barriers installed at these borders. An STC rating roughly equals the decibel reduction in noise volume that a wall, window, or door can provide. Therefore, using STC-rated materials could substantially increase the level of noise reduction provided by the barrier. The composition, location, height, and width of the			

Standard Conditions of Approval	Implementation/Monitoring		
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barriers during different phases of construction will be determined by a qualified acoustical consultant and incorporated into the Construction Noise Management Plan for the Project. • Best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically-attenuating shields or shrouds) will be used for Project equipment and trucks during construction wherever feasible. For example, exhaust mufflers on pneumatic tools can lower noise levels by up to about 10 dBA and external jackets can lower noise levels by up to about 5 dBA. • Noise control blankets will be utilized on the building structure as the building is erected to reduce noise emission from the site. The use of noise control blankets will particularly be targeted to cover the levels of the building that have line of sight with the windows of adjacent receptors; • Construction equipment will be positioned as far away from noise-sensitive receptors as possible. The Project site is surrounded by hard surfaces, and therefore, for every doubling of the distance between a given receptor and construction equipment, noise will be reduced by approximately 6 dBA. *b. Public Notification Required* The Project applicant shall notify property owners and occupants located within 300 feet of the construction activities at least 14 calendar days prior to commencing extreme noise generating activities. Prior to providing the notice, the Project applicant shall submit to the City for review and approval the proposed type and duration of extreme noise generating activities and the proposed public notice. The public notice shall provide the estimated start and end dates of the extreme noise generating activities and describe noise attenuation measures to be implemented.			
SCA-NOI-4: Project-Specific Construction Noise Reduction Measures. (#61) The Project applicant shall submit a Construction Noise Management Plan prepared by a qualified acoustical consultant for City review and approval that contains a set of site-specific noise attenuation measures to further reduce construction noise impacts. The Project applicant shall implement the approved Plan during construction.	Prior to Approval of Construction-Related Permit	Bureau of Building	Bureau of Building
SCA-NOI-5: Construction Noise Complaints. (#62) The Project applicant shall submit to the City for review and approval a set of procedures for responding to and tracking complaints received pertaining to construction	Prior to Approval of Construction-Related Permit	Bureau of Building	Bureau of Building

Standard Conditions of Approval	Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
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.			
SCA-NOI-6: Exposure to Community Noise. (#63) The Project applicant shall submit a Noise Reduction Plan prepared by a qualified acoustical engineer for City review and approval that contains noise reduction measures (e.g., sound-rated window, wall, and door assemblies) to achieve an acceptable interior noise level in accordance with the land use compatibility guidelines of the Noise Element of the Oakland General Plan. The applicant shall implement the approved Plan during construction. To the maximum extent practicable, interior noise levels shall not exceed the following: 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.	Prior to Approval of Construction-Related Permit	Bureau of Planning	Bureau of Building
SCA-NOI-7: Operational Noise. (#64) 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-8: Vibration Impacts on Adjacent Historic Structures or Vibration-Sensitive Activities. (#66) The Project applicant shall submit a Vibration Analysis prepared by an acoustical and/or structural engineer or other appropriate qualified professional for City review and approval that establishes pre-construction baseline conditions and threshold levels of vibration that could damage the structure and/or substantially interfere with activities located at 522-526 Grand Ave, a Craftsman-Tudor Revival House built	Prior to Construction	Bureau of Building	Bureau of Building

Standard Conditions of Approval	Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
in 1914, and which has an OCHS Rating of B+1+. The Vibration Analysis shall identify design means and methods of construction that shall be utilized in order to not exceed the thresholds. Design considerations may include operating heavy-construction equipment as far away from vibration-sensitive sites as possible and not performing demolition, earth-moving, and other ground-impacting operations simultaneously. The applicant shall implement the recommendations during construction.			
Transportation /Traffic			
SCA-TRANS-1: Construction Activity in the Public Right-of-Way. (#68) *a. Obstruction Permit Required* The Project applicant 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.	Prior to Approval of Construction Related Permit	Bureau of Building	Bureau of Building
b. Traffic Control Plan Required In the event of obstructions to vehicle or bicycle travel lanes, the Project applicant shall submit a Traffic Control Plan to the City for review and approval prior to obtaining an obstruction permit. The Project applicant 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 applicant shall implement the approved Plan during construction.	Prior to Approval of Construction Related Permit	Public Works Department, Transportation Services Division	Bureau of Building
c. Repair City Streets The Project applicant 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.	Prior to Building Permit Final	N/A	Bureau of Building
SCA-TRANS-2: Bicycle Parking. (#69) The Project applicant 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
Utilities and Service Systems			
SCA-UTIL-1: Construction and Demolition Waste	Prior to	Public Works	Public Works

Standard Conditions of Approval	Implementation/Monitoring		
	When Required	**Initial Approval**	**Monitoring/ Inspection**
Reduction and Recycling. (#74) The Project applicant shall comply with the City of Oakland Construction and Demolition Waste Reduction and Recycling Ordinance (chapter 15.34 of the Oakland Municipal Code) by submitting a Construction and Demolition Waste Reduction and Recycling Plan (WRRP) for City review and approval, and shall implement the approved WRRP. Projects subject to these requirements include all new construction, renovations/alterations/ modifications with construction values of $50,000 or more (except R-3 type construction), and all demolition (including soft demolition) except demolition of type R-3 construction. The WRRP must specify the methods by which the Project will divert construction and demolition debris waste from landfill disposal in accordance with current City requirements. The WRRP may be submitted electronically at www.greenhalo systems.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.	Approval of Construction-Related Permit	Department, Environmental Services Division	Department, Environmental Services Division
SCA-UTIL-2: Underground Utilities. (#75) The Project applicant shall place underground all new utilities serving the Project and under the control of the Project applicant and the City, including all new gas, electric, cable, and telephone facilities, fire alarm conduits, street light wiring, and other wiring, conduits, and similar facilities. The new facilities shall be placed underground along the Project's street frontage and from the Project structures to the point of service. Utilities under the control of other agencies, such as PG&E, shall be placed underground if feasible. All utilities shall be installed in accordance with standard specifications of the serving utilities.	During Construction	N/A	Bureau of Building
SCA-UTIL-3: Recycling Collection and Storage Space. (#76) The Project applicant shall comply with the City of Oakland Recycling Space Allocation Ordinance (chapter 17.118 of the Oakland Planning Code). The Project drawings submitted for construction-related permits shall contain recycling collection and storage areas in compliance with the Ordinance. For residential Projects, at least two cubic feet of storage and collection space per residential unit is required, with a minimum of ten cubic feet. For nonresidential Projects, at least two cubic feet of storage and collection space per 1,000 square feet of building floor area is required, with a minimum of ten cubic feet.	Prior to Approval of Construction-Related Permit	Bureau of Planning	Bureau of Building
SCA-UTIL-4: Green Building Requirements. (#77) *a. Compliance with Green Building Requirements During Plan-Check* The Project applicant shall comply with the requirements of the California Green Building	Prior to Approval of Construction-Related Permit	Bureau of Building	N/A

Standard Conditions of Approval	Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
Standards (CALGreen) mandatory measures and the applicable requirements of the City of Oakland Green Building Ordinance (chapter 18.02 of the Oakland Municipal Code). i. The following information shall be submitted to the City for review and approval with the 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. • A minimum of 23 points (3 Community; 6 IAQ/Health; 6 Resources; 8 Water) as defined by the Green Building Ordinance for Residential New Construction. • All green building points identified on the checklist approved during review of the Planning and Zoning permit, unless a Request for Revision Plan-check application is submitted and approved by the Bureau of Planning that shows the previously approved points that will be eliminated or substituted. • The required green building point minimums in the			

Standard Conditions of Approval	Implementation/Monitoring		
	When Required	**Initial Approval**	**Monitoring/ Inspection**
appropriate credit categories.			
b. Compliance with Green Building Requirements During Construction The Project applicant 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.	During Construction	N/A	Bureau of Building
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 applicant shall submit to the Bureau of Planning the Certificate from the organization listed above demonstrating certification and compliance with the minimum point/certification level noted above.	After Project Completion as Specified	Bureau of Planning	Bureau of Building
SCA-UTIL-5: Sanitary Sewer System. (#79) The Project applicant shall prepare and submit a Sanitary Sewer Impact Analysis to the City for review and approval in accordance with the City of Oakland Sanitary Sewer Design Guidelines. The Impact Analysis shall include an estimate of pre-Project and post-Project wastewater flow from the Project site. In the event that the Impact Analysis indicates that the net increase in Project wastewater flow exceeds City-Projected increases in wastewater flow in the sanitary sewer system, the Project applicant shall pay the Sanitary Sewer Impact Fee in accordance with 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 Engineer-ing and Construction	N/A

Standard Conditions of Approval	Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
SCA-UTIL-6: Storm Drain System. (#80) 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

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."

Project. The Project is located in the City of Oakland General Plan area. It would demolish the existing surface parking lot and the existing building on Burk Street to construct a new mixed-use development of approximately 54,655 gross square feet including parking. The building footprint of ~13,767 sf will overlay the majority of the surface of the property. Ground floor development is planned to include 2,997 sf of retail along Grand Ave, 971 sf of service area behind the retail space, a 608-sf lobby, and a parking garage with 45 Puzzle Lift Parking spaces and two accessible parking spaces, for a total of 47 parking spaces.

The second through partial-sixth floors will include 51,658 sf of residential floor area in 40 apartment units, including 19 one-bedroom units and 21 two-bedroom units, with a podium-level open courtyard on the eastern side of the second floor. The proposed building height is 77´ at the corner of Grand and Euclid (roof height is 65'), sloping down to 43´-6" at the northeast corner along Burk Street.

Project Consistency. The City of Oakland completed an update of the General Plan Land Use and Transportation Element (LUTE) in March 1998. The LUTE includes the City's current Land Use and Transportation Diagram as well as strategies, policies, and priorities for Oakland's development and enhancement during a two decade period. The EIR certified for the LUTE is used to simplify the task of preparing environmental documents on later projects that occur as a result of LUTE implementation. Cumulative environmental effects identified in the LUTE's EIR as (a) significant and unavoidable or (b) significant but can be reduced to less-than-significant through mitigation, are limited to the following topics: aesthetics/winds, cultural resources, hazards/hazardous materials, land use/planning, transportation/circulation, population/housing, and public services.

The following analysis provides substantial evidence to support a conclusion that the Project qualifies for an exemption under CEQA Guidelines Section 15183 as a project consistent with the development density established by existing zoning,community plan, or general plan policies for which an EIR was certified.

Criterion Section 15183 (a): General Plan, Community Plan, and Zoning Consistency

Yes	No	
☑	❒	The Project is consistent with the development density established by existing zoning,community plan, or general plan policies for which an EIR was certified.

General Plan-- Land Use and Transportation Element

The General Plan land use designation for the Project Site and surrounding area is Neighborhood Center Commercial (CN). The intent of the CN classification is to enhance the character of established neighborhood commercial centers that have a compact, vibrant pedestrian environment.

1. **The Project is aligned with policies set forth in the LUTE of the General Plan as listed below:**

The General Plan promotes development focused in neighborhood Activity Centers, defined as:

"..areas that have or will have diverse business, civic, and social activities supported and strengthened by surrounding housing, that help to form neighborhoods and reflect the distinct identity of Oakland's communities….Pedestrian amenities and public transit service are important components of activity centers, and many are at bus transfer points where there is service on more than one AC Transit line. Together, the pattern of activity centers helps give structure to the whole city."[41]

The Project is within the Grand Lake Activity Center, as described in the General Plan, and would provide 40 new housing units less than 0.25 mile from several major AC Transit bus routes, including the NL TransBay bus line.

- **Policy N1.1 Concentrating Commercial Development**. Commercial development in the neighborhoods should be concentrated in areas that are economically viable and provide opportunities for smaller scale, neighborhood-oriented retail.

- **Policy N3.2 Encouraging Infill Development.** In order to facilitate the construction of needed housing units, infill development consistent with the General Plan should take place throughout the City of Oakland.

- **Policy N1.8 Making Compatible Development.** The height and bulk of commercial development in "Neighborhood Mixed-Use Center" and "Community Commercial" areas should be compatible with that which is allowed for residential development.

The Project is consistent with the above General Plan policies for the following reasons:

[41] City of Oakland, 1998. *General Plan*, Land Use and Transportation Element, p. 34.

- The Project site is currently a surface parking lot. The Project would provide infill housing that complies with the City's design standards and respects the surrounding streetscape, as specified in the Planning Code and subject to the City's design review process.

- The Project would redevelop an existing surface parking lot with a mixed-use residential development that would include ground floor retail uses and provide new infill housing in a neighborhood mixed use center.

- The Project would be generally compatible with the mixed-use buildings on the same and neighboring blocks, as it would also provide residential uses, and would complement other adjacent buildings that contain ground floor retail by providing similar types of uses.

Therefore, the Project would be consistent with the General Plan policies detailed above.

2. The Project is consistent with the Housing Element 2015-2023 of the General Plan

A portion of the Project site—500 Grand Ave (APNs 10-780-15-8)—is identified as a Housing Opportunity Site per the Housing Element 2015-2023, Table C-6 (Site PPDA-127). The Housing Element defines Opportunity Sites as sites suitable for development of multifamily projects that could accommodate very low, low and moderate income housing as well as additional market-rate units. These sites are expected to make an important contribution to meeting the housing needs detailed in Association of Bay Area Government's Regional Housing Needs Allocation (RHNA), adopted in 2013. The Project would provide multi-family housing consistent with its designation as an Opportunity Site in the Housing Element. The Project site meets Housing Element criteria of sites suitable for new housing development, including:

- It is an underutilized site with outmoded facilities and/or marginal existing use;

- It is located along one of the City's major commercial corridors, and utilizes ground floor commercial space with housing above, as encouraged by zoning and development guidelines to maximize residents' access to services including retail opportunities, transportation alternatives and civic activities, while reducing the need for automobiles, thus increasing the sustainability of such development.

3. **The Project is consistent with the development density established by existing Zoning, Community Plan or General Plan policies.**

The Project site is zoned CN-2/S-12, meaning Neighborhood Center Commercial with a Residential Parking Combining Zone, per the City of Oakland Planning Code Sections 17.33 and 17.94. This section of the Code states that "The intent of the Neighborhood Center Commercial (CN) Zones is to create, preserve, and enhance mixed use neighborhood commercial centers. The centers are typically characterized by smaller scale pedestrian oriented, continuous and active store fronts with opportunities for comparison shopping." The specific intent of the CN-2 Zone is "to enhance the character of established neighborhood commercial centers that have a compact, vibrant pedestrian environment." This classification is intended to enhance the

character of established neighborhood commercial centers that have a compact, vibrant pedestrian environment. Residential uses above ground floor are permitted.

Zoning of the Project site was not changed pursuant to the updated Housing Element, and remains as CN-2 zoning, with a 45-foot height limit. The approximately 14,300 square-foot parcel yields a maximum of 32 units at a density of 450 square feet per unit, as permitted under the CN-2 zoning standards. The Project utilizes existing City programs for density bonuses and incentives as included in the Oakland Planning Code (section 17.107) by making 12.5% of its base allowable density units (four units) available for occupancy by low-income households. These Planning Code provisions are intended to encourage construction of affordable housing by offering density bonuses, plus incentives and/or financially equivalent concessions to a developer of a housing development constructing a specified percentage of housing for low-income households, very low-income households, senior citizens, or providing childcare facilities. Pursuant to Section 17.107.090 (Permitted Number of Density Incentives or Concessions), the Project qualifies for one (1) incentive or concession, as it is a project that includes at least 10% of the total units for lower-income households. Specifically, the Project includes the following density bonusand ,concession:

a) The Project is eligible for a 23% percent density increase over the otherwise maximum allowable residential density permitted under the applicable CN-2 zoning standards. This 23 percent increase to the base allowable density of 32 units yields a maximum of 40 residential units. Four of the 32 base allowable density units (or 12.5% of the base density) are specifically designated as affordable to low income households which enables family-based affordable housing opportunities.

b) The Project includes one (1) concession from otherwise applicable development standards, specifically to increase the maximum permitted building height from 45 feet, to roof height of 65 feet. This increased height is necessary to accommodate the full range of affordable housing and mixed-use program proposed by the Project.

This bonus and concession include modifications to requirements of the Oakland Planning Code and modifications to architectural design requirements that would otherwise be required, and result in identifiable, financially sufficient and actual cost reductions as encouraged in the Density Bonus provisions of the Planning Code.

As indicated in Planning Code Section 17.107.30 (F), "the granting of a Density Bonus shall not be interpreted, in and of itself, to require a General Plan amendment, zoning change, or other discretionary approval." In other words, these density bonuses are consistent with existing zoning and are enabled under the City's Planning Code to encourage the construction of affordable housing.

Based on the above, the Project is consistent with the development density established by existing zoning, community plan or General Plan policies for which an EIR was certified (i.e., the Housing Element 2015-2023 and its associated EIR and Addendum), and the Project qualifies as a Project Consistent with a Community Plan or Zoning pursuant to CEQA Guidelines Section 15183.

4. **The Project otherwise conforms to existing zoning policies.**

- The Project proposes approximately 2,997 square feet of ground-floor retail use along the Grand Avenue frontage and residential uses in the upper floors. The proposed design complies with design standards and regulations of the Planning Code, including but not limited to the following:

- The residential and ground floor retail uses are permitted upon the granting of a Conditional Use Permit under Chapter 17.134 of the Planning Code.

- Regulations for S-12 Residential Parking Combining Zone in Municipal Code Section 17.94.040 require the Project to provide one space for each 3 habitable rooms (the Basic Requirement), plus Visitor Parking of an additional 0.2 spaces for each dwelling unit. The Project is proposed as 40 residential units, with 101 habitable rooms, yielding the requirement to provide 47 Basic plus 8 Visitor parking spaces, totaling 55. The Applicant proposes to provide 47 parking spaces to meet the Basic Requirement. Pursuant to Section 17.107.095 of the Planning Code and California Government Code 65915 (e) (1), the Project is eligible for a waiver of a development standard--in this case, the visitor parking ratio. The waiver is allowed where a development standard will "have the effect of physically precluding the construction of a development…at the densities or with the concessions or incentives permitted by this Chapter," This waiver is being requested by the applicant because of the additional density allowed by the Project's provision of 12.5% affordable housing units and the lack of feasibly of including the additional visitor parking into the development project while maintaining the density allowed by the bonus. The only alternative would be eliminating the ground floor commercial component of the Project, which would create many more additional instances of non-compliance with the Planning Code. The waiver will not result in any adverse impacts on health, safety, or the physical environment, nor will it result in an adverse impact on a property listed in the California Register of Historical Resources. The waiver allows the Project to provide a total of 47 parking spaces, which fulfills the Basic Requirement for residents.

- The building conforms to the zero-lot line rear setback provision pursuant to the Planning Code, Table 17.33.050, Regulation 8, for nonresidential facilities that are not adjacent to an RH, RD, or RM zone or the RU-1 zone .

- The Project would provide 6,267 square feet of usable open space, which is above the required 6,000 square feet of usable open space (150 square feet per regular dwelling unit) pursuant to Planning Code Section 17.33.050.

Therefore, the Project adheres to the criteria of CEQA Guidelines Section 15183(a) as being consistent with both the development density established in the General Plan and applicable zoning regulations for the site.

Since the Project is consistent with the development assumptions for the site as provided under the LUTE EIR and within the overall range of development within the Neighborhood Center Mixed Use designation as assumed in the Housing Element EIR, the Project's potential contribution to cumulatively significant effects has already been addressed in these prior EIRs. Therefore, consistent with CEQA Guidelines Section 15183 which allows for streamlined environmental review, this document needs only to consider whether there are project-specific

effects peculiar to the project or its site, and relies on the streamlining provisions of CEQA Guidelines Section 15183 to not re-consider cumulative effects.

Therefore, the Project is eligible for consideration of an exemption under California Public Resources Code Section 21083.3 and Section 15183 of the CEQA Guidelines.

Further, as outlined in Section IV, Purpose and Summary, the analysis in Attachments B and C, provide substantial evidence to support the use of the:

- Qualified Infill Exemption; and/or
- Program EIRs and Redevelopment Projects.

ATTACHMENT C: STREAMLINING FOR INFILL PROJECTS, SECTION 15183.3

Based on CEQA Guidelines Section 15183.3(d)(1), the Lead Agency must examine an eligible infill project in light of the prior EIR to determine whether the infill project will cause any effects that require additional review under CEQA. This evaluation shall:

A. Document whether the infill project satisfies the applicable performance standards in Appendix M.

B. Explain whether the effects of the infill project were analyzed in a prior EIR

C. Explain whether the infill project will cause new specific effects (defined as "an effect that was not addressed in the prior EIR and that is specific to the infill project or the infill project site").

D. Explain whether substantial new information shows that the adverse environmental effects of the infill project are more significant (defined as "substantially more severe") than described in the prior EIR.

If the infill project will cause new specific effects or more significant effects, the evaluation should indicate whether uniformly applicable development policies or standards will substantially mitigate those effects.

The following information demonstrates that the Project is eligible for permit streamlining pursuant to CEQA Guidelines Section 15183.3 as a qualified infill Project, and fulfills the review requirements of its provisions.

A. Appendix M Performance Standards

The following analysis demonstrates that the Project is located in an urban area on a site that has been previously developed; satisfies the performance standards provided in CEQA Guidelines Appendix M; and is consistent with the General Plan land use designation, density, building intensity and applicable policies. As such, this environmental review is limited to an assessment of whether the Project may cause any Project-specific effects, and relies on uniformly applicable development policies or standards to substantially mitigate cumulative effects.

PROJECT INFILL ELIGIBILITY		
CEQA Eligibility Criteria		**Eligible?/Notes for 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 as a gasoline service station and surface parking lots, 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 onsite 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 onsite 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 Project is not required to include onsite 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. The Project site is located on State Water Resources Control Board's GeoTracker list, which is one of the lists included under Section 65962.5 of the Government Code (Site Cleanup Program Case No. RO0003175 and Geotracker Global ID T10000007707). A Site Management Plan (SMP) has been prepared by the Applicant and conditionally approved by the Alameda County Department of Environmental Health (ACDEH 2016). The SMP addresses precautions that will be taken to mitigate risks to human health and the environment from identified chemicals during future redevelopment and/or intrusive activities at the Site such as soil grading, excavation, recompaction, trenching and backfilling activities and utility repair. The Applicant will implement the recommendations provided in the SMP.
	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	Yes. For Projects that include residential units, the BAAQMD recommends evaluating the cumulative health risks to the residents from mobile and stationary sources of TAC emissions within 1,000 feet of the Project. The Project would be required to implement the

PROJECT INFILL ELIGIBILITY		
	CEQA Eligibility Criteria	**Eligible?/Notes for Project**
	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.	health risk reduction measures under SCA-20, including the installation and maintenance of high efficiency filtration systems with a Minimum Efficiency Reporting Value rating of 13 (MERV-13). See the discussion under Air Quality, included in this CEQA Analysis.
	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]	—
	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 (A major transit stop is defined as "a site containing... the intersection of two or more major bus routes with frequencies of service intervals of 15 minutes or less udring the morning and afternoon peak commute periods"); **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	Yes, Project satisfies B. The Project site is within ½-mile an Existing Major Transit Stop. The is served by Alameda-Contra Costa County Transit District (AC Transit) bus routes 12, 57, 26, 12, and NL, which all stop within 0.25-mile of the Project site. These routes intersect within 500 feet of each other, with each providing fixed route bus service at intervals no longer than 15 minutes during peak commute hours.

PROJECT INFILL ELIGIBILITY		
CEQA Eligibility Criteria		**Eligible?/Notes for Project**
	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.	
	Commercial/Retail. A commercial/retail Project must meet **<u>one</u>** 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"; **<u>or</u>** 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 meeting **<u>one</u>** of the following: A. *Regional Location.* Office buildings, both commercial and public, are eligible if they locate in a low vehicle travel area; **<u>or</u>** 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.
	Schools. Elementary schools within 1 mile of 50 percent of the Projected student population are eligible. Middle schools and high schools within 2 miles of 50 percent of the Projected student population are eligible. Alternatively, any school within ½ mile of an existing major transit stop or an existing stop along a high quality transit corridor is eligible. 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.	Not Applicable.
	Transit. Transit stations, as defined in Section 15183.3(e)(1), are eligible.	Not Applicable.
	Small Walkable Community Projects. Small walkable community Projects, as defined in Section 15183.3, subdivision (f)(5), that implement the Project features in 2a above are eligible.	Not Applicable.

PROJECT INFILL ELIGIBILITY		
CEQA Eligibility Criteria		**Eligible?/Notes for 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). (CEQA Guidelines Section 15183.3[b][3])	Yes. The adopted Plan Bay Area (2013)[1] serves as the sustainable communities strategy for the Bay Area, per Senate Bill 375. Plan Bay Area identified Priority Development Areas (PDAs), where new development will support the needs of residents and workers in a pedestrian-friendly environment served by transit. As identified in the Housing Element 2015-2023, the Project is within an Oakland Potential Priority Development Area (PPDA-127), meaning it is expected to be designated by the City as a PDA in the future. Such PPDA areas in Oakland that are eligible for designation are those which the General Plan has already shown as a Transit Oriented Development node or Key Transit Corridor and that have also completed neighborhood planning efforts that allow increased housing densities in these areas. As such, they are consistent with the general land use designation, density, building intensity, and applicable policies specified in the General Plan as described in further detail in the CEQA Analysis under Section 15183 and summarized below. The General Plan land use designation for the site is Neighborhood Center Mixed Use; this classification is intended to enhance the character of established neighborhood commercial centers that have a compact, vibrant pedestrian environment. The proposed mixed-use Project would be consistent with this designation.

B. Effects Analyzed in Prior EIR

As discussed in Section III above, the 1998 LUTE EIR (including its Initial Study Checklist) determined that development consistent with the LUTE would result in impacts that would be reduced to a less-than-significant level with the implementation of mitigation measures and/or SCAs (described in Section VI): aesthetics (views, architectural compatibility and shadow only); air quality (construction dust [including PM_{10}] and emissions, odors); cultural resources (except as noted below as less than significant); hazards and hazardous materials; land use (use and density incompatibilities); water quality; noise (use and density incompatibilities, including from transit/transportation improvements); population and housing (induced growth, policy consistency/clean air plan); public services; and transportation/circulation (intersection operations).

Less-than-significant impacts were identified for the following resources in the 1998 LUTE EIR and Initial Study: aesthetics (scenic resources, light and glare); air quality (clean air plan

[1]Metropolitan Transportation Commission and Association of Bay Area Governments, 2013. Plan Bay Area, Strategy for a Sustainable Region. Adopted July 18, 2013.

consistency, roadway emissions, energy use emissions, local/regional climate change); biological resources; cultural resources (historic context/settings, architectural compatibility); energy; geology and seismicity; hydrology and water quality; land use (conflicts in mixed use projects and near transit); noise (roadway noise citywide, multifamily near transportation/transit improvements); population and housing (exceeding household projections, housing displacement from industrial encroachment); public services (water demand, wastewater flows, stormwater quality, parks services); and transportation/circulation (transit demand). No impacts were identified for agricultural or forestry resources and mineral resources.

Significant unavoidable impacts were identified for the following environmental resources in the 1998 LUTE EIR: air quality (regional emissions); public services (fire safety); transportation/circulation (roadway segment operations: Grand Avenue between Harrison St. and I-580); and policy consistency (Clean Air Plan). Due to the potential for significant unavoidable impacts, a Statement of Overriding Considerations was adopted as part of the City's approvals.

Environmental Effects Summary – 2010 Housing Element and 2014 Addendum

The 2010 Housing Element Update EIR (including its Initial Study Checklist) and 2014 Addendum determined that housing developed pursuant to the Housing Element, which would include the Project site, would result in impacts that would be reduced to a less-than-significant level with the implementation of mitigation measures and/or SCAs (described in Section IV): aesthetics (visual character/quality and light/glare only); air quality (except as noted below); biological resources; cultural resources; geology and soils; greenhouse gas emissions; hazards and hazardous materials (except as noted below, and no impacts regarding airport/airstrip hazards and emergency routes); hydrology and water quality (except as noted below); noise; public services (police and fire only); and utilities and service systems (except as noted below).

Less-than-significant impacts were identified for the following resources in the Housing Element Update EIR and Addendum: hazards and hazardous materials (emergency plans and risk via transport/disposal); hydrology and water quality (flooding/flood flows, and inundation by seiche, tsunami or mudflow); land use (except no impact regarding community division or conservation plans); population and housing (except no impact regarding growth inducement); public services and recreation (except as noted above, and no impact regarding new recreation facilities); and utilities and service systems (landfill, solid waste, and energy capacity only, and no impact regarding energy standards). No impacts were identified for agricultural or forestry resources, and mineral resources.

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

Thus, the effects of the infill project were discussed in the prior EIRs.

C. New Specific Effects

As demonstrated in Section VII, the Project would not cause new specific effects that were not addressed in the LUTE EIR or the Housing Element EIR and EIR Addendum. The checklist analysis of the 500 Grand Avenue Project in Section VI concludes that there would be no impacts that were not analyzed in prior EIRs.

Specifically, the analysis in Section VII analyzed resource topics that the Housing Element Initial Study determined could have significant impacts:

- Aesthetics
- Air Quality
- Noise
- Population and Housing
- Hazardous Materials
- Transportation/Traffic

As the analysis demonstrates, the Project would not substantially increase the severity of the significant impacts identified in the HE EIR, nor would it result in new significant impacts related to population and housing that were not identified in the HE EIR. Further, there have been no substantial changes in circumstances following certification of the Housing Addendum EIR that would result in any new specific effects.

D. Substantial New Information

As stated in Section VII, there is no new information that was not known at the time the Housing Element EIR Addendum was certified in 2014 that would cause more severe adverse impacts than discussed in the prior EIR. The updated Housing Element (2015-2013) reinforced the need for Opportunity Sites to be developed to meet RHNA goals. There have been no significant changes in the underlying development assumptions, nor in the applicability or feasibility of mitigation measures or SCAs included in the prior EIRs.

E. Standard Conditions of Approval

SCAs incorporate policies and standards from various adopted plans, policies, and ordinances, which have been found to substantially mitigate environmental effects. The SCAs are adopted as requirements of an individual project when it is approved by the City and are designed to, and will, substantially mitigate environmental effects. SCAs that apply to 500 Grand Avenue Project are included above in Attachment A.

Consistent with CEQA Guidelines Section 15183.3(a), which allows streamlining for qualified infill Projects, this environmental document is limited to topics applicable to Project-level review where the effects of infill development have been addressed in other planning level decisions of the General Plan Land Use and Transportation Element (LUTE) and LUTE Environmental Impact Report (EIR) (1998), the General Plan 2007-2014 Housing Element and EIR (2010) and the 2015-

2023 Housing Element and Addendum (2014), or by uniformly applicable development policies (Standard Conditions of Approval) which mitigate such impacts.

ATTACHMENT D: SITE MANAGEMENT PLAN: 500 GRAND AVE.

July 15, 2016

Mark Detterman
Senior Hazardous Materials Specialist, PG, CEG
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502

Email: mark.detterman@acgov.org

Subject: Alameda County Environmental Health Case Number RO0003175
Geotracker Global ID Number T10000007707
500 Grand Ave, Oakland, CA

Dear Mr. Detterman:

As per our June 17, 2016 conference call we have revised the attached *Site Management Plan* for 500 Grand Avenue, Oakland, CA (Site) to include the requested text as shown below:

Section 4.0

- ACEH and other appropriate agencies shall be notified of any "new" undocumented environmental impacts discovered at the Site.
- After earthwork activities are complete, a report will be prepared to document the relocation and final disposition of soil reused or disposed of offsite. At a minimum, the report will include the dimensions of the excavation and confirmation sample locations. The analytical data will be provided in tables and a Site plan showing sampling locations and limits of excavation and grading will be presented. If applicable, copies of receipts pertaining to the disposition of the soil will be appended to the report. The report will be submitted to ACEH and the appropriate agencies. The report will be reviewed by an ACEH approved toxicologist to confirm that the confirmation sample data is consistent with the approved Site specific Human Health Risk Assessment. The final report will be stamped by a California licensed engineer or geologist attesting to the validity of the data.

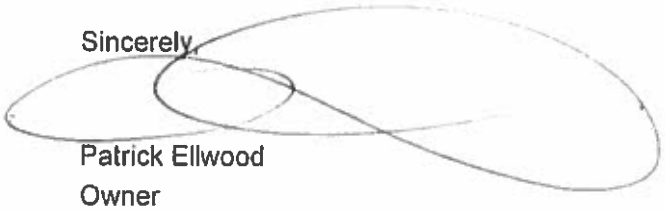
Section 5.0

- ACEH and other appropriate agencies shall be notified of any "new" undocumented environmental impacts discovered at the Site.
  - ~~Change in environmental conditions~~
  - Intrusive activity that is not addressed by this SMP;
  - New chemical toxicity information for chemicals present at the Site;

- As referenced in Section 4.0 of the SMP, if new environmental impacts are identified, then ACEH and applicable regulatory agencies must be notified at the time of identification; and
- A RACR will be completed and provided to ACEH and the appropriate agencies upon completion of the subgrade preparation. The RACR will include confirmation sampling data and locations for the known impacts documented in Sections 3.1.2 and 3.1.3 of this SMP, as well as, information and analytical data associated with dewatering activities. The RACR will be reviewed by an ACEH approved toxicogist, verifying that the confirmation sample data is consistent with the specific ACEH approved HHRA contained as part of the SGI May 2016, *Supplemental Site Investigation*. The RACR will be stamped by a California licensed engineer or geologist verifying the validity of the data.

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

Sincerely,



Patrick Ellwood
Owner
Ellwood Commercial Real Estate

SITE MANAGEMENT PLAN

500 Grand Avenue
Oakland, California 94610

Alameda County Environmental Health Case Number: RO0003175

Geotracker Global ID Number: T10000007707

01-ECR-001

Prepared For:
Ellwood Commercial Real Estate
Oakland, California

Prepared By:

SGI environmental THE SOURCE GROUP, INC.

3478 Buskirk Avenue, Suite 100
Pleasant Hill, California 94523

July 15, 2016

Prepared By:

J. Glen Smith
Senior Project Manager

Reviewed By:

Steve Hickey, P.E.
Senior Engineer

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1.0 INTRODUCTION

On behalf of Ellwood Commercial Real Estate (ECR), The Source Group, Inc. (SGI) has prepared this Site Management Plan (SMP) for the 500 Grand Avenue, Oakland, California (**Figure 1**; Site).

1.1 Site Location and Description

The site is located on the northeast corner of Euclid Avenue and Grand Avenue in Oakland, California. Property address is 500 Grand Avenue (Site Location Map, **Figure 2-1**). An adjacent parcel to the north is being incorporated into the planned development. That parcel's previous address was 401 through 403 Burk Street. The site is within an urbanized environment approximately 200 feet north of Lake Merritt. The surrounding properties are a mixture of commercial and residential (both single and multi-family housing). Topography slopes gently toward Lake Merritt. Surface drainage is intercepted by street curbing and collected into the municipal storm water system.

Since 1992 the property has been covered with asphalt pavement and serves as a commercial parking lot. Current redevelopment plans include a first floor commercial establishment and residential occupation for upper stories. The proposed Site development plans consist of multi-unit mixed use residential housing complex, with street front commercial retail and parking garage on the lower floor, and landscaping around the perimeter.

1.2 Purpose and Objectives

The purpose of this SMP is to provide a plan to prevent or minimize human exposure to soil, groundwater, and soil vapor which may contain chemicals of potential concern (COPC) at the Site. This SMP was prepared to govern all future intrusive work at the Site such as soil grading, excavation, recompaction, trenching and backfilling activities that may be associated with the development depicted in the May 2, 2016 Kava Massih architectural drawings.

2.0 BACKGROUND

This section provides information about subsurface conditions at the Site. Subsurface investigations at the Site were initiated in 1998.

2.1 Previous Site Investigations

The property was an active commercial service station from at least 1946 until closure in 1991. The service station was demolished in 1992 and remaining underground petroleum storage tanks (USTs), piping, and fuel dispensers, etc. were removed at that time. A significant portion of the property was over excavated after demolition to remove impacted soils. Prior reports (Conestoga – Rovers, 2009) indicate the excavation was approximately 7 to 9 feet deep. Preliminary environmental investigations and remedial actions were initiated in 1988 and continued intermittently through 2011, when site "closure" was approved by Alameda County Environmental Health (ACEH). Terms of the closure approval limited future land use to commercial development and required future excavation and construction in potentially impacted areas activities be implemented by the developing party with "appropriate health and safety procedures." A copy of the closure finding by ACEH "Closure Transmittal, Fuel Leak Case No. RO0000391, 500 Grand Avenue, Oakland" dated September 21, 2011 is attached as **Appendix A.**

Figure 2-2 shows the locations of the previous service station related infrastructure that was previously removed and boundaries of previous soil excavations. **Figure 2-3** shows locations of planned lower floor structure layout and the locations of residual hydrocarbons identified in soils during the current Supplemental Data- Gap Investigation.

2.2 Hydrogeologic Setting

Much of the Site shallow soils are compacted backfill ranging in depth 3.5 to 12 feet below ground surface (bgs). There is also a discontinuous deposit of pea gravel underlying a portion of the sand/gravel backfill on the northern half of the Site. Native soils consist of quaternary alluvial sands and clays, with the upper strata being predominantly composed of silts and clays. **Figures 2-3, 2-4** and **2-5** provide cross sectional interpretations based on the recent drilling logs. Cross section orientations are shown on **Figure 2-2.**

Groundwater was determined to be partially confined at the Site, as it stabilized at a shallower depth bgs than first encountered in the soil borings. All groundwater monitoring wells at the site were abandoned prior to 2012, so static water levels are not available. Prior studies indicate the gradient to be toward the southeast and water levels have been observed to fluctuate 2.5 to 3 feet (Harding Lawson, 1990).

2.3 Summary of Current Environmental Conditions

As described above multiple environmental investigations have been conducted at the Site including soil, groundwater, and soil vapor sampling, with associated laboratory analysis. However, the

majority of investigation activities occurred prior to remediation of the Site. As discussed in the SGI May 2016, *Supplemental Site Investigation* Report and shown in **Figure 2-6**, 73% of the site was excavated. The remediation of the site by over-excavation was successful in removing residual petroleum hydrocarbon concentrations to less than the California Regional Water Quality Control Board (CRWQCB) commercial environmental screening levels (ESLs) with the exception of the area identified in **Figure 2-2** and associated cross sections (**Figures 2-3** and **2-4**). The human health risk assessment (HHRA) completed as part of the SGI May 2016, *Supplemental Site Investigation Report* indicated that the residuals petroleum hydrocarbons present in soil (adjacent to Grand Avenue) and in the groundwater (adjacent to Grand Avenue and the southeast corner of the Site) present no risks to future occupants associated with the planned project. Risks are limited to construction worker exposure during foundation excavation activities. The subsequent sections of this SMP establishes the location(s), concentrations, and methods to manage the residual petroleum hydrocarbons, that may be encountered during the construction phase of the planned project, in a manner that is protective of human health and the environment.

2.3.1 Distribution of the COPCs

Based on the May 2016, SGI *Supplemental Investigation Report*, residual petroleum hydrocarbon contamination, in soil, above CRWQCB ESLs is limited to the unexcavated edge of the property adjacent to Grand Avenue (see **Figure 2-2**). Contaminants identified in the borehole SGI-SB-01 and SGI-SB-02 include petroleum hydrocarbons (characterized as TPHd) above commercial ESLs in one sample and naphthalene (above residential ESLs in three boreholes (including two samples collected in 2015 by Allwest, 2015). Other low level TPH, volatile organic compounds and semi-volatile organic compounds were reported in several other samples (see **Table 2-1** for summary of laboratory analytical results for soil samples).

Grab water samples collected from ten of the DPT borings indicate relatively low levels hydrocarbons in groundwater underlying the site and concentrations above commercial ESLs for benzene and ethylbenzene in samples collected from SGI-SB-02 and SGI-SB-03. **Table 2-2** provides a summary of laboratory analytical results for groundwater samples. Groundwater was first encountered in SGI-SB-02 and SGI-SB-03 at 8-feet and 14.5-feet below ground surface, respectively.

2.3.2 Soil Boring Logging and Observations

Interpretation of the subsurface geology by DPT is based on continuous core samples that were retrieved as the rods were advanced to final depth. The SGI field geologist recorded observations for the individual samples on the DPT logs (**Appendix B**).

Figures 2-3, **2-4**, and **2-5** provide interpreted cross sections showing the depth and extent of the previous excavation, backfill material, and extent of the residual petroleum hydrocarbon soil and groundwater impacts present on the Site. The Figures also show the proposed foundation and floor

elevation for the new development and summaries of the analytical results from the soil samples collected. **Figure 2-6** provides orientations of each cross section and the locations of the soil borings.

Soil borings confirmed the lateral extent of previous over-excavation and backfill (**Figures 2-3** through **2-6**). Backfill ranged from 2.5 feet bgs near the north end of the 500 Grand Avenue parcel to 12 feet bgs within the southeast quadrant (in the vicinity of the removed USTs). Underlying native soils were generally clays, with interbedded silts and sands.

2.3.3 Geotechnical Analysis

Geotechnical analysis of soil samples SGI-SB-6-4 and SGI-SB-10-10 were performed to determine physical properties in accordance with Cal EPA and DTSC indoor air modeling guidance. SB-10-10 was selected as representative of native soils near the localized residual petroleum hydrocarbon impacted soils adjacent to Grand Avenue. SB-6-4 was selected as representative of the backfill material and is located within the planned elevator shaft and internal stairwell for the planned development. A copy of the geotechnical laboratory report is provided in **Appendix C**. Based on grain size distribution the native (SB-10-10) soils were classified as silt and the backfill (SB-6-4) was classified as coarse sand.

2.3.4 Soil Vapor Analytical Results

Shallow groundwater present in soil vapor monitoring wells and tight native soils prevented collection of viable soil vapor data. All soil vapor risks were calculated from grab groundwater sample data collected during the SGI *Supplemental Site Investigation* (May 2016).

2.3.5 Groundwater Analytical Results

Groundwater samples were collected from 10 separate locations (SGI-SB-1 through though SB-10) on in April, 2016. Sample results are included in **Table 2-2** and are summarized below:

- Benzene and ethylbenzene in concentrations above commercial/Industrial ESLs was encountered in one water sample (GW-02) collected within the residual contamination adjacent to Grand Avenue and one sample (GW-03) collected within the southeast corner within the vicinity of the planned stairwell at that location. Benzene concentrations for these two samples ranged from 55 µg/L to 740 µg/L and ethylbenzene ranged from 130 µg/L to 710 µg/L.
- Other contaminants above residential ESLs were only encountered in the same two water samples as listed above (GW-02 and GW-03) and consisted of xylenes and naphthalene.
- Low levels of MTBE (ranging from 0.6 µg/L to 5.9 µg/L) was encountered six of the 10 grab samples scattered throughout the site. The leak-check compound (1,1-difluoroethane) was not detected in any of the samples analyzed.

- Low levels of TPHg (highest concentration 15,000 µg/L), THPd (highest concentration 3,000 µg/L), and TPHmo (highest concentration 4,400 µg/L) were also reported in multiple groundwater samples.

2.3.6 Soil Analytical Results

Soil sample analytical results are provided in **Table 2-1** and summarized below:

- Only one sample, located at SGI-SB-3, yielded concentrations exceeding commercial/industrial ESLs for TPH diesel (**Figure 2-2** at three feet below ground surface within the unexcavated soils adjacent to Grand Avenue).
- Recent samples exceeding residential ESLs are also limited to the area described above. Soil boring SGI-SB-01, SGI-SB-02, AW-SB-2, and AW-SB-5 (**Figure 2-6**) contained either diesel or naphthalene exceedances within the upper five feet.
- Soil samples collected from within the backfill material placed after excavation of USTs and other impacted confirm the backfill is free of contaminants above residential ESLs.

2.3.7 Soil Risk Results

Based on a comparison of Site data and the CRWQCB ESLs, COPCs were identified in soil at the Site. **Table 2-1** provides a summary of laboratory analytical results for soil samples and applicable screening levels. No TPH, volatile organic compounds (VOC), or semi volatile organic compounds (SVOC) were detected at concentrations above the soil ESL for construction land use. Based on proposed development plans, the Site is expected to be capped by a building and concrete/asphalt paving, which would preclude any direct contact with soil for residential or commercial/industrial receptors. As summarized below, only TPH as diesel (TPHd) and naphthalene were detected at concentration above the soil ESL for residential or commercial/industrial land use. These exceedances were limited to the soil adjacent to Grand Avenue.

2.3.7.1 Total Petroleum Hydrocarbons Risk Results

TPH as gasoline (TPHg) and TPH as motor oil (TPHmo) were not detected above the soil ESL for residential or commercial/industrial land use. TPH as diesel (TPHd) was detected in 20 of 21 soil samples. The following table summarizes the detected concentrations that are above the soil ESLs.

Sample	Date Sampled	Depth (feet bgs)	Chemical	Concentration (mg/kg)	Soil ESL Residential (mg/kg)	Soil ESL Commercial (mg/kg)
SGI-SB-01-3	04-16-16	3	TPHd	2,100	***230***	***1,100***
SGI-SB-02-2	04-16-16	2	TPHd	610	***230***	1,100

2.3.7.2 Volatile Organic Compounds and Semi-Volatile Organic Compounds Risk Results

No VOCs or SVOCs were detected above the soil ESLs for commercial/industrial land use. Naphthalene was the only VOC detected above the soil ESL for residential land use. Naphthalene

was detected in 6 of 21 soil samples. The following table summarizes the detected concentrations that are above the soil ESLs.

Sample	Date Sampled	Depth (feet bgs)	Chemical	Concentration (mg/kg)	Soil ESL Residential (mg/kg)	Soil ESL Commercial (mg/kg)
SGI-SB-02-2	04-16-16	2	Naphthalene (by 8260)	3,600	***3,300***	14,000
			Naphthalene (by 8270)	1,100	3,300	14,000
SGI-SB-02-5	04-16-16	5	Naphthalene (by 8260)	3,900	***3,300***	14,000
			Naphthalene (by 8270)	3,200	3,300	14,000

As shown in the above table, the VOC analysis by USEPA Method 8260 indicated higher concentrations of naphthalene which only slightly exceeded the soil ESL for residential land use. The SVOC analysis by USEPA Method 8270 indicated lower concentrations of naphthalene, which did not exceed the soil ESLs for residential land use.

TPHd and naphthalene concentrations in a few soil samples slightly exceed the residential soil ESLs. These isolated residential soil ESLs are not a concern as the proposed development, the proposed multi-story building will cover the entire Site, which precludes any direct contact with soil. Only under a redevelopment/construction worker exposure scenario will direct contact with soil be a complete exposure pathway. As mentioned previously, TPH, VOCs, and SVOCs were not detected at concentrations exceeding the soil ESLs for construction land use. Therefore, soil does not pose a human health risk to potential onsite construction worker receptors. During redevelopment of the Site, site activities will be managed consistent with the SMP.

2.3.8 Groundwater

For groundwater, the only potential complete exposure pathway is inhalation of vapors volatilizing from groundwater into indoor air or direct contact/ingestion/inhalation during construction. However, as dicussed in subsequent Sections 2.3.8.1 and 2.3.8.2 they do not pose a threat to future residents of the proposed development. **Table 2-2** provides a summary of laboratory analytical results for grab groundwater samples from the Site and applicable screening levels. As summarized below, only benzene, ethylbenzene, total xylenes, and naphthalene were detected at concentrations above the groundwater vapor intrusion ESLs for commercial/industrial land use. **Table 2-3** summarizes off-Site groundwater sampling data.

2.3.8.1 Total Petroleum Hydrocarbons Risk Results

TPHg, TPHd, and TPHmo were detected in several of the grab groundwater samples. No groundwater ESLS for vapor intrusion from shallow groundwater were available for TPH. Therefore, vapor intrusion impacts associated with TPH mixtures is evaluated based on the more toxic components of TPH (i.e., benzene, toluene, ethylbenzene, total xylenes [BTEX], methyl tert-butyl ether [MTBE], and polyaromatic hydrocarbons [PAHs]) by analysis of VOCs and SVOCs.

2.3.8.2 Volatile Organic Compounds and Semi-Volatile Organic Compounds Risk Results

Benzene and ethylbenzene were detected above the groundwater vapor intrusion ESLs for commercial/industrial land use. Benzene was detected in 2 of 11 grab groundwater samples. Ethylbenzene was detected in 3 of 11 grab groundwater samples. The following table summarizes the detected concentrations that are above the groundwater ESLs for vapor intrusion from shallow groundwater. These two samples represent residual petroleum hydrocarbon concentration exceedances in groundwater that were discussed in Section 2.3.7 for soil. Groundwater was first encountered in SGI-SB-02 and SGI-SB-03 at 8-feet and 14.5-feet below ground surface, respectively. Based on the proposed development plans for the Site, excavation activities are not anticipated to encounter groundwater within these areas.

SGI-GW-03 was collected in the area of the proposed external open air stairwell and exceeds the commercial ESL standard for benzene and ethylbenzene. Since this is an open air stairway there is no complete pathway to the upper residential floors. Therefore, groundwater does not pose a human health risk to potential onsite resident receptors in this area. However, the potential for construction workers to come into contact with soil vapor from impacted groundwater does exist and is addressed by standard mitigation measures in Section 3.6.

Sample	**Date Sampled**	**Depth** (feet bgs)	**Chemical**	**Concentration** (ug/L)	**Groundwater ESL Commercial** (ug/L)
SGI-GW-02	04-16-16	5.5	Benzene	55	***9.7***
			Ethylbenzene	130	***110***
SGI-GW-03	04-21-16	>13	Benzene	740	***9.7***
			Ethylbenzene	710	***110***

3.0 SITE MANAGEMENT ACTIVITIES

3.1 Soil Management

Soil management during construction addresses precautions that will be taken to mitigate risks to human health and the environment from identified chemicals during future redevelopment and/or intrusive activities at the Site such as soil grading, excavation, recompaction, trenching and backfilling activities and utility repair. These precautions will include the following:

- Implementation of construction impact mitigation measures, including control of dust generation at the Site, decontamination of equipment, and prevention of storm water runoff; and
- Establishment of procedures to: (1) manage soil and groundwater on the Site during construction and (2) characterize soil if it is found to contain concentrations of TPH or VOCs in excess of ESLs for commercial land use consistent with the planned development defined by the May 2, 2016 Kava Massih architectural drawings.

Section 3.1.1 discusses mitigation of known residual petroleum hydrocarbon concentrations that exceed commercial ESLs. Subsequent sections present general methodologies and approaches that will be used to manage all aspects of subsurface disturbance associated with planned development.

3.1.1 Mitigation of Known Residual Petroleum Hydrocarbon Soil Impacts

As discussed in Section 2.3 there is one localized area defined by SGI-SB-01 (at 3-feet below ground surface) that exceeds commercial ESLs for the planned project. The residual petroleum hydrocarbons impacts are within the planned excavation of the foundation and are expected to be removed during construction of the foundation.

3.1.2 Removal of Residual Petroleum Hydrocarbon Impacts Adjacent to Grand Avenue within the Foundation Excavation

The lateral and horizontal extent of residual petroleum hydrocarbon impacts in soil adjacent to Grand Avenue are shown on **Figures 2-2** and **2-3**. During the excavation of the footer foundations in this area (50-feet long x 2.5-feet wide x 5-feet deep) the developer's contractor will remove approximately 23 cubic yards of soil s that exceed the commercial ESLs. Depth of excavations are measured from the current ground surface. Based on the most recent soil investigation data for this area, excavation to 5-feet below ground surface will remove all soils that exceed commercial ESLs within and below the foundation footer. Soils will be field screened, sampled, and submitted for laboratory analysis (as described in Section 3.1.4) for confirmation that remaining soils beneath the foundation footer are less than commercial ESLs.

3.1.3 Removal of Residual Petroleum Hydrocarbon Impacts Adjacent to Grand Avenue beneath Foundation

There are additional soils adjacent to the area referenced in Section 3.1.2 that also exceed the commercial ESLs. These soils are located between the edge of the prior dispenser island excavation and the edge of the proposed foundation footer (**Figures 2-2 and 2-3**). An estimated 51 cubic yards (in place) of residual petroleum impacted soil that exceed commercial ESLs are present in this area (50-feet long x 5.5-feet wide x 5-feet deep) and will be removed during foundation excavation activities. Depth of the respective excavations are measured from the current ground surface. Soils will be field screened, sampled, and submitted for laboratory analysis (as described in Section 3.1.4) for confirmation that remaining soils beneath the foundation footer are less than commercial ESLs. Removing this soil will effectively eliminate all soils exceeding the commercial ESLs within the footprint of the proposed redevelopment of the Site.

3.1.4 Foundation Excavation Confirmation Soil Sampling

Soil samples will be screened in the field for VOCs using an organic vapor monitor (OVM) equipped with a photo-ionization (10.9 eV bulb) detector. Approximately 20 grams of soil at a 5-foot lateral spacing along the bottom of the proposed trench excavations will be placed in a self-sealing plastic bag to allow the pore space to volatilize. The headspace in the plastic bag will then be monitored for VOCs with the OVM. Based on soil boring data and corresponding OVM field screening data collected during the SGI April 2016, *Supplemental Site Investigation* excavations will be deepened in areas where OVM readings exceed 100 ppm. OVM readings less than 100 ppm yielded corresponding analytical laboratory data that was less than commercial ESLs. Two composite soil samples from the bottom of each 50-foot excavation will be analyzed for VOCs using EPA Method 8260B.

Samples will be collected in laboratory provided containers appropriate for the analysis to be performed. The containers will be capped with Teflon™ septa, labeled, and placed on ice for transport to the analytical laboratory. All non-disposable sampling equipment will be cleaned with a non-phosphate detergent solution, rinsed with tap water, and rinsed a third time with deionized water prior to use.

A chain-of-custody record will be initiated in the field to accompany the samples to the laboratory. The soil and groundwater samples will be analyzed for VOCs using EPA Method 8260B. Should confirmation samples indicate concentrations in excess of the commercial ESLs, the excavation will be deepened and resampled. All excavated soil will be managed in accordance with methods discussed in subsequent sections. Appropriate trench safety protocols will be used to excavate at depth.

3.2 Site Specific Health and Safety Plans

During all activities involving disturbance of the subsurface, those workers that may directly contact soil containing constituents of concern (petroleum hydrocarbons) will perform these activities in

accordance with a site-specific health and safety plan (HASP). The plan will be consistent with State and Federal Occupational Safety and Health Administration ("OSHA") standards for hazardous waste operations (CCR, Title 8, Section 5192 and 29 Code of Federal Regulations 1910.120, respectively). The site-specific HASP is included as **Appendix D**. The HASP will be updated to include task specific hazards. Among other things, the HASP will include a description of health and safety training requirements for onsite construction workers, a description of the level of personal protective equipment to be used, if any, air quality monitoring plans, and any other applicable precautions to be undertaken. The HASP shall include procedures for handling soil and/or groundwater contaminated with residual petroleum hydrocarbons.

3.3 Soil Management Protocols

Soil management protocols described in this section provide guidance for excavating and handling soil at the Site. The specific protocols to be followed when managing soil on the Site are summarized below:

- If soil is to be disposed off-site then sampling frequencies and test methods employed to characterize the soil will be determined by the disposal facility accepting the soil;
- If soil is to remain at the Site, it must be tested to determine if residual petroleum hydrocarbons are less than the appropriate screening levels for reuse; and
- Testing of soil for reuse will be performed during excavation by sampling excavated soil as stockpiles are being formed.

3.3.1 Soil Testing and Analytical Protocol

Soil intended for reuse will be sampled at an appropriate frequency in accordance with the RWQCB guidance for Characterization and Reuse of Petroleum Hydrocarbon Impacted Soil as Inert Waste (RWQCB 2006[1]).

Following excavation activities, samples will be collected based on the volume of soil and a minimum number of discrete samples to be collected in accordance RWQCB guidance as follows:

- Stockpiles less than 500 cubic yards: One sample for every 25 cubic yards (e.g., 20 samples for a 500 cubic yard stockpile).
- Stockpiles from 500 to 1,000 cubic yards: Twenty (20) samples plus one sample for every 100 cubic yards in excess of the initial 500 cubic yards (e.g., 25 samples for a 1000 cubic yard stockpile).

A sampling grid of stockpiled soil will be established and samples will be collected uniformly and/ or biased toward hotspot areas. Soil samples will be collected in brass or stainless steel tubes or glass sampling jars. Each sample container will be labeled, sealed, and placed on ice in a cooler. Samples will be transmitted under chain-of-custody procedures to a State of California certified

[1] RWQCB, 2006. Characterization and Reuse of Petroleum Hydrocarbon Impacted Soil as Inert Waste. October 20.

laboratory. Soil samples will be analyzed for analytes as required by the disposal facility, which may include TPH, VOCs, and metals using EPA Methods 8015M, 8260B, and 6010. Soil samples that exceed the RWQCB Soil Concentration Limits or No-To-Exceed Limits specified in the RWQCB guidance will be separated and analyzed using the waste extraction test (WET) to further assess applicability of on-site re-use of off-site disposal (RWQCB, 2006). The results from the WET analysis will be compared to RWQCB Leachate Concentration Limits (RWQCB 2006).

3.3.2 Handling Procedures for Contaminated Soil

The following handling procedures shall be followed during excavation activities.

- Any stockpiled soil shall be covered with plastic sheeting or tarps and will not be stockpiled in or near storm drains.
- Access to excavated areas shall be controlled to prevent unauthorized persons accessing exposed soil.
- Soil determined to be hazardous waste shall be disposed of offsite. Soil shall be transported under applicable U.S. and California Department of Transportation regulations. Current federal and state requirements should be reviewed prior to disposal of soil.

3.4 Minimizing Soil and Groundwater Contact by Construction Workers

There are potential health and safety risks associated with residual petroleum hydrocarbons detected in Site soils and groundwater. There is the potential for contact by construction workers with residual chemicals in soil and groundwater at the Site. The routes of potential exposure to the residual petroleum hydrocarbons in soil are: dermal (skin) contact with the soil; (2) inhalation of dust and vapor; and (3) ingestion of the soil.

Groundwater occurs on-Site at a depth of two feet bgs on the northern end of the Site (immediately adjacent to the retaining wall) and averages five feet bgs on the southern end. If dewatering is required, there is the potential for contact by construction workers with residual petroleum hydrocarbons in groundwater at the Site. The routes of potential exposure to the petroleum hydrocarbons and VOCs in groundwater are: (1) dermal (skin) contact with groundwater; and (2) inhalation of emissions from exposed water.

The above-mentioned health risks to on-site construction workers will be minimized by developing and implementing a site-specific HASP. The Site Environmental Manager or representative overseeing removal actions will be responsible for establishing and maintaining proper health and safety procedures to minimize construction worker exposure to Site contaminants. At minimum, the site-specific HASP will include: (1) health and safety training requirements for on-Site personnel; (2) personal hygiene and monitoring equipment to be used during construction to protect and verify the health and safety of the construction workers; (3) additional precautions to be undertaken to minimize direct contact with hazardous substances, including implementation of dust control measures; and (4) a description of the procedures to mitigate any potential health risk to bystanders during subsurface activities.

A Site health and safety officer (HSO) or designee will be on-Site during excavation activities to ensure that all health and safety measures are maintained. The HSO will have the authority to direct and, if necessary, stop all construction activities in order to ensure compliance with the site-specific health and safety plan.

3.5 Groundwater and Dewatering Activity Management

Any project-related dewatering activities shall either discharge into the sanitary sewer, under a local agency permit, or comply with the NPDES permit regulations and/or an associated SWPPP as applicable regarding discharge into storm drains. Such permit requirements typically include on-site treatment to remove any potential pollutants prior to discharge. Low levels of dissolved phase petroleum hydrocarbons may be present in the groundwater beneath the site. Groundwater should be sampled from any areas requiring dewatering to determine if treatment is required prior to discharge under permit. Alternatively, the water shall be temporarily stored onsite in holding tanks, pending off-site disposal at an approved disposal facility.

3.6 Site Control

Access to the work zones where soil will be disturbed shall be controlled using caution tape, cones, fencing, steel plates, or other measures to clearly designate the active work area and to prevent access by the public. To minimize the migration of contaminated soils from the Site to uncontaminated areas, excavated soil shall be covered and secured by temporary fences or other means to prevent unauthorized access.

3.7 Vapor Monitoring

Vapor monitoring will be conducted during intrusive activities at the Site to minimize the potential inhalation of petroleum-related compounds in soil vapor. Intrusive activities include soil grading, excavation, recompaction, trenching and backfilling activities and utility repair. As described in section 2.3 above, subsurface investigations conducted at the Site revealed the presence of residual petroleum hydrocarbon impacts in groundwater above the commercial ESLs.

Task-specific vapor monitoring activities will be presented in the site-specific HASP and will include trigger (action) levels for halting work and implementing mitigation measures. Continuous vapor monitoring will be conducted adjacent to the work area with hand-held photo-ionization detector (PID). The PID instruments will be calibrated daily in accordance with the manufacturer's instruction. The field personnel will notify earthwork contractors if readings exceed trigger levels and will request that vapor mitigation measures be implemented. The vapor mitigation measures will consist of: (1) short term cessation of the work being performed to allow vapor to dissipate, and\or (2) relocation to another work area.

3.8 Dust Control Measures

Dust control measures will be implemented during construction activities at the Site to minimize the generation of dust. Dust generation that will be mitigated includes that associated with excavation activities, truck traffic, ambient wind traversing soil stockpiles, and loading of transportation vehicles.

Dust generation will be minimized using appropriate measures. These measures include but are not limited to the following:

- Mist or spray water while performing excavation activities and loading transportation vehicles;
- Limit vehicle speeds on the property to 5 miles per hour;
- Control excavation activities to minimize the generation of dust;
- Minimize drop heights while loading transportation vehicles; and
- Cover soil stockpiles, if present, with visqueen or tarps.

3.9 Decontamination

Decontamination procedures shall be developed by contractors to minimize the equipment contamination during excavation activities. The procedures should include removing loose soil from the vehicle exterior using dry methods, such as brushing, scraping or vacuuming. Soil not removed by dry methods, should be cleaned by pressure washing or steam cleaning. Water collected from the cleaning process should be sampled prior to disposal.

3.10 Storm Water Control

Storm water pollution controls shall be implemented by construction contractors to minimize sediment runoff in storm water, which could include soil containing contaminants of concern. Prior to the initiation of the work, the contractors must follow the requirements of the local governing bodies. Storm water pollution controls implemented at the Site will be based on best management practices.

Procedures to prevent erosion and sediment runoff from the Site shall include grading the Site, installing storm water control devices such as temporary earth berms and straw bale barriers or sediment traps to protect storm drains.

3.11 Reporting

After earthwork activities are complete, a brief summary report will be prepared to document the relocation and final disposition of soil reused or disposed of offsite. At a minimum, the report will include the dimensions of the excavation and confirmation sample locations (as appropriate). The analytical data will be provided in tables and a Site plan showing sampling locations and limits of excavation and grading will be presented. If applicable, copies of receipts pertaining to the disposition of the soil will be appended to the report.

4.0 CONTINGENCY PLAN

The following contingency plan shall be implemented to address unknown contamination during intrusive activities conducted at the Site such as soil grading, excavation, recompaction, trenching and backfilling activities and utility repair.

- All grading, trench excavation and filling operations, and dewatering operations shall be observed for the presence of free-phase petroleum products, chemicals, or contaminated soil/groundwater. Discolored soil or suspected contaminated soil shall be segregated from clean soil. In the event unexpected, contaminated soil or groundwater is encountered during construction, the contractor shall notify Site Environmental Manager. The Site Environmental Manager shall confirm the presence of the suspect material and direct the contractor to remove, stockpile or contain, and characterize the suspect material(s) identified within the boundaries of the construction area. Continued work at a contaminated site shall require the approval of the Site Environmental Manager.
- ACEH and other appropriate agencies shall be notified of any "new" undocumented environmental impacts discovered at the Site.
- A photoionization detector (or other organic vapor detecting device) shall be present during grading and excavation through suspected chemically impacted soil.
- Excavation of VOC-impacted soil will require obtaining and complying with a Bay Area Air Quality Management District Rule 40 permit.
- The extent of removal actions shall be determined on a site-specific basis. At a minimum, the chemically impacted area(s) within the boundary of the construction area and/or trench shall be remediated to the satisfaction of the lead regulatory agency (California Regional Water Quality Control Board [CRWQCB]) for the Site. The Site Environmental Manager or representative overseeing removal actions shall inform the contractor when the removal action is complete.
- In the event that contaminated soil is encountered, all on-site personnel handling or working in the vicinity of the contaminated material shall be trained in accordance with OSHA regulations for hazardous waste operations. These regulations are based on CFR 1910.120 (e) and 8 CCR 5192, which states that "general site workers" shall receive a minimum of 40 hours of classroom training and a minimum of three days of field training. This training provides precautions and protective measures to reduce or eliminate hazardous materials/waste hazards at the work place.
- All excavations shall be filled with structurally suitable fill material, which contains non-hazardous contaminant concentrations (if any) that do not exceed ESLs.
- Any project-related dewatering activities shall either discharge into the sanitary sewer, under appropriate permit, or comply with the NPDES permit regulations and an associated SWPPP as applicable regarding discharge into storm drains. Such permit requirements typically

include on-site treatment to remove pollutants prior to discharge. Alternatively, the water shall be temporarily stored onsite in holding tanks, pending off-site disposal at an approved disposal facility.

- The Site Environmental Manager shall confirm the presence of the suspect contaminated soil and direct the contractor to remove, stockpile, or contain the suspect material identified within the boundaries of the construction area. Contaminated soil shall either be treated on-site or trucked off-site for disposal at a California licensed facility approved for disposal of such waste.
- After earthwork activities are complete, a report will be prepared to document the relocation and final disposition of soil reused or disposed of offsite. At a minimum, the report will include the dimensions of the excavation and confirmation sample locations. The analytical data will be provided in tables and a Site plan showing sampling locations and limits of excavation and grading will be presented. If applicable, copies of receipts pertaining to the disposition of the soil will be appended to the report. The report will be submitted to ACEH and the appropriate agencies. The report will be reviewed by an ACEH approved toxicologist to confirm that the confirmation sample data is consistent with the approved Site specific Human Health Risk Assessment. The final report will be stamped by a California licensed engineer or geologist attesting to the validity of the data.

5.0 IMPLEMENTATION OF SITE MANAGEMENT PLAN

The Site owner shall oversee implementation of this SMP at the Site. A copy of this SMP shall be included in all contracts signed with contractors and third party contractors working in the subsurface at the Site. It is the responsibility of the contractor to adhere to this SMP, project specifications, and site safety. The contractor is also responsible for providing a copy of this SMP to its subcontractors.

This SMP was developed based on the current conditions at the Site and applicable regulations. It may be necessary to modify this SMP from time to time for any of several reasons, including the following.

- Intrusive activity that is not addressed by this SMP;
- New chemical toxicity information for chemicals present at the Site;
- As referenced in Section 4.0 of the SMP, if new environmental impacts are identified, then ACEH and applicable regulatory agencies must be notified at the time of identification; and
- A RACR will be completed and provided to ACEH and the appropriate agencies upon completion of the subgrade preparation. The RACR will include confirmation sampling data and locations for the known impacts documented in Sections 3.1.2 and 3.1.3 of this SMP, as well as, information and analytical data associated with dewatering activities. The RACR will be reviewed by an ACEH approved toxicogist, verifying that the confirmation sample data is consistent with the specific ACEH approved HHRA contained as part of the SGI May 2016, *Supplemental Site Investigation.* The RACR will be stamped by a California licensed engineer or geologist verifying the validity of the data.

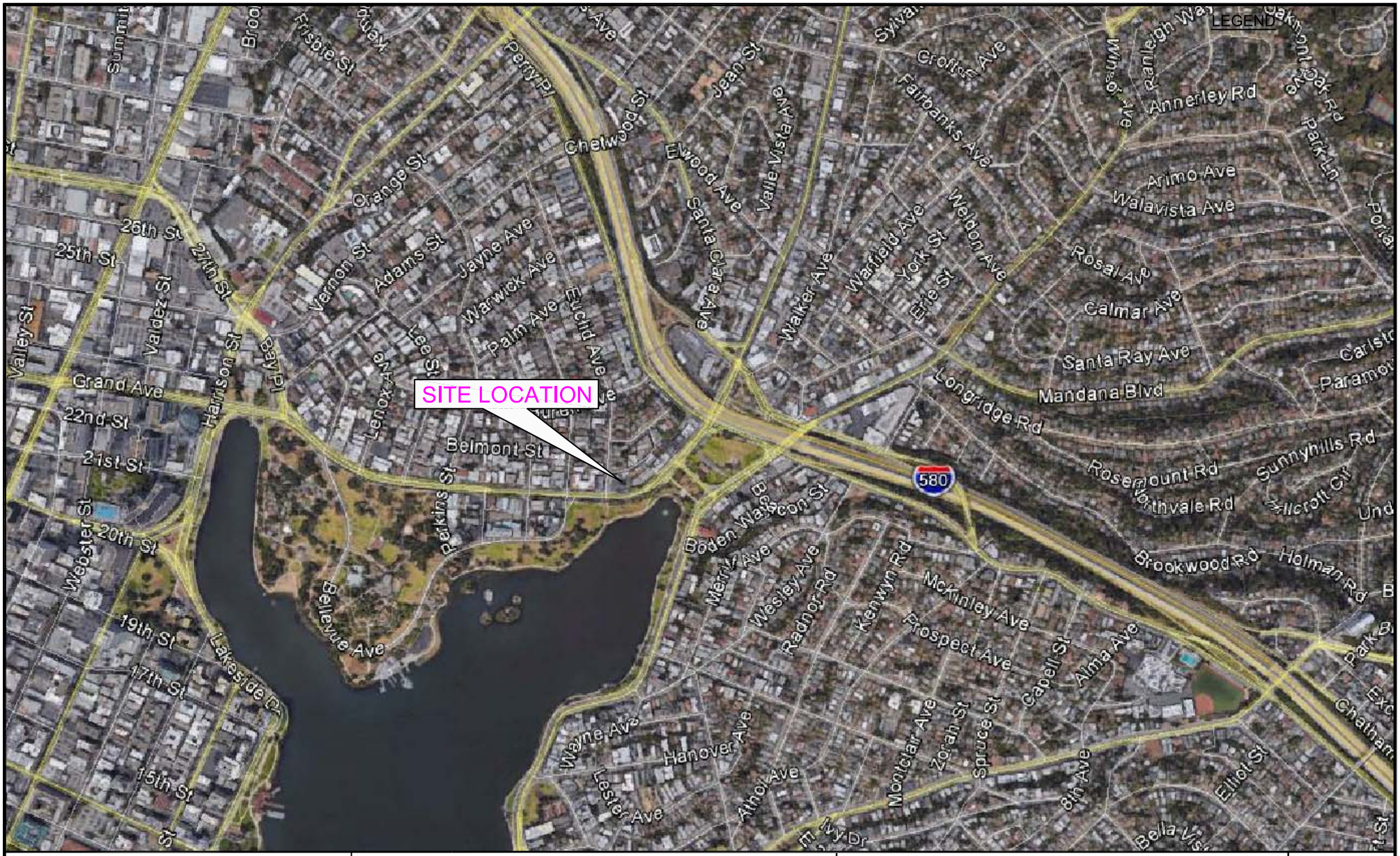
6.0 LIMITATIONS

This SMP was prepared to address current known site conditions including the presence of VOCs and TPH in the soil, groundwater, and soil vapor in the subsurface at the Site. This SMP does not address issues related to other chemicals or future site conditions that may be encountered during construction projects, including but not limited to, demolition and construction debris, asphalt, concrete, and asbestos-containing materials. If such materials are encountered during a construction project, contractors and workers are responsible for complying with all applicable laws pertaining to the handling and disposal of these materials.

The Site-related activities may be subject to federal, state, and local laws and regulations, including those published by U.S. Environmental Protection Agency (USEPA), the BAAQMD, California Environmental Protection Agency (Cal-EPA), Alameda County, and the City of Oakland. These regulations address issues such as health and safety, hazardous waste, dust generation, storm water, and community right-to-know. It is the responsibility of the parties involved to ensure that all construction and maintenance activities abide by current applicable laws and regulations.

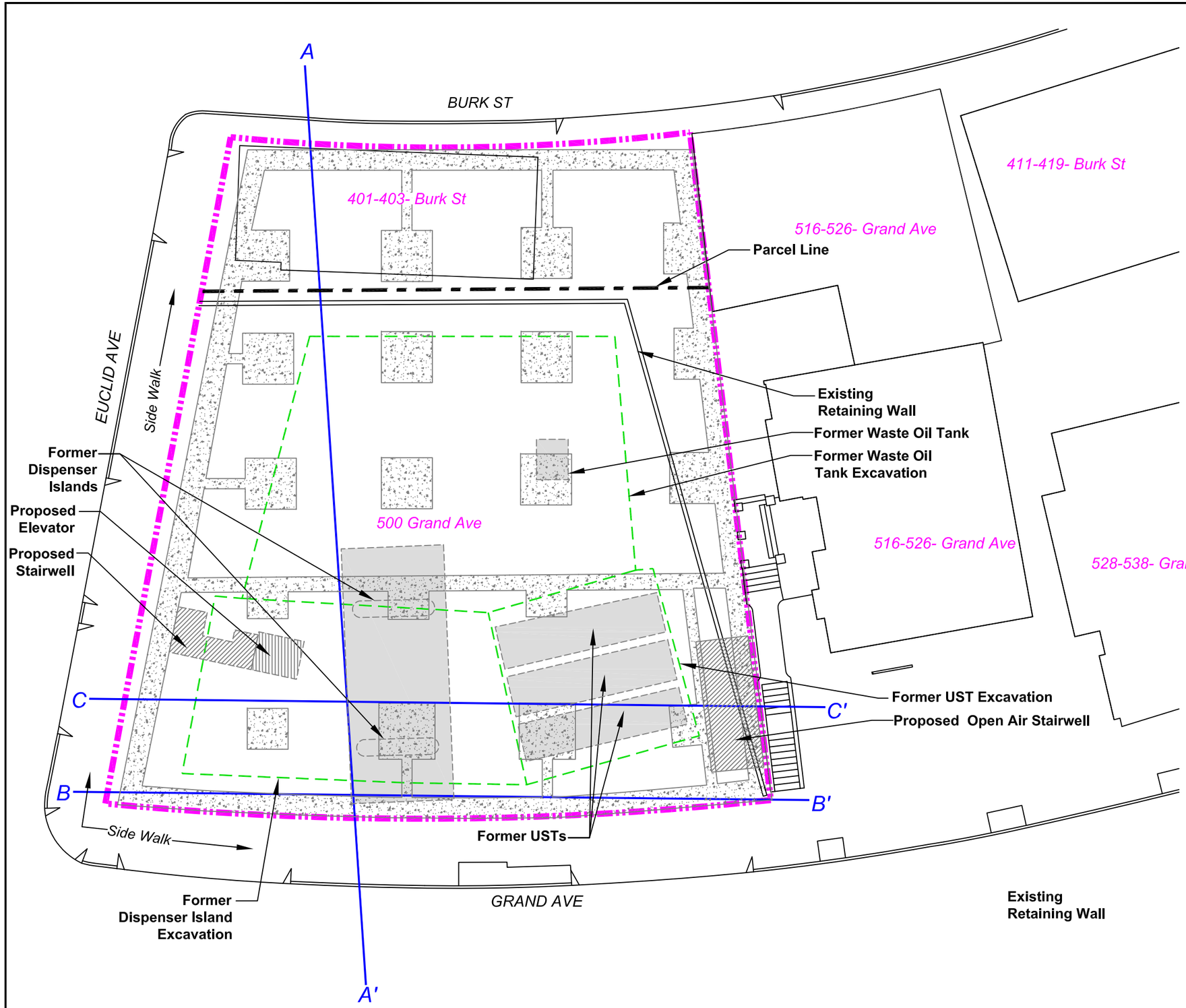
SGI disclaims any responsibility for any unauthorized use of this SMP. It is understood that while this SMP is intended to provide guidance and establish a framework for the management of residual product in the subsurface in soil to protect human health and the environment, this SMP shall not create any warranties or obligations to the City of Oakland/Alameda County as to implementation, adequacy, or success of protective measures under this SMP.

FIGURES



SGI environmental THE SOURCE GROUP, INC. 3478 BUSKIRK AVENUE, SUITE 100 PLEASANT HILL, CA 94523	500 GRAND AVENUE OAKLAND, CA			**SITE LOCATION MAP**	N
	PROJECT NO. 01-WSR-001	DATE 05/16/16	DR.BY: ZA	APP. BY: GS	0 1000 1000 APPROXIMATE HORIZONTAL SCALE IN FEET
					FIGURE 1-1

S:\Clients A - F\Ellwood Commercial Real Estate\Soil Management Plan\Figures\Fig.1-1-Site Location Map.dwg



LEGEND

- Property Line
- Base of UST, Dispenser, and Waste Oil Tank Over-Excavation
- Cement Footers
- A——A' Cross Section location

PROPOSED REDEVELOPMENT FOOTPRINT WITH FOOTERS

500 GRAND AVENUE
OAKLAND, CA

PROJECT NO.	DATE	DRAWN BY:	APP. BY:
01-ECR-001	03/21/16	ZA	GS

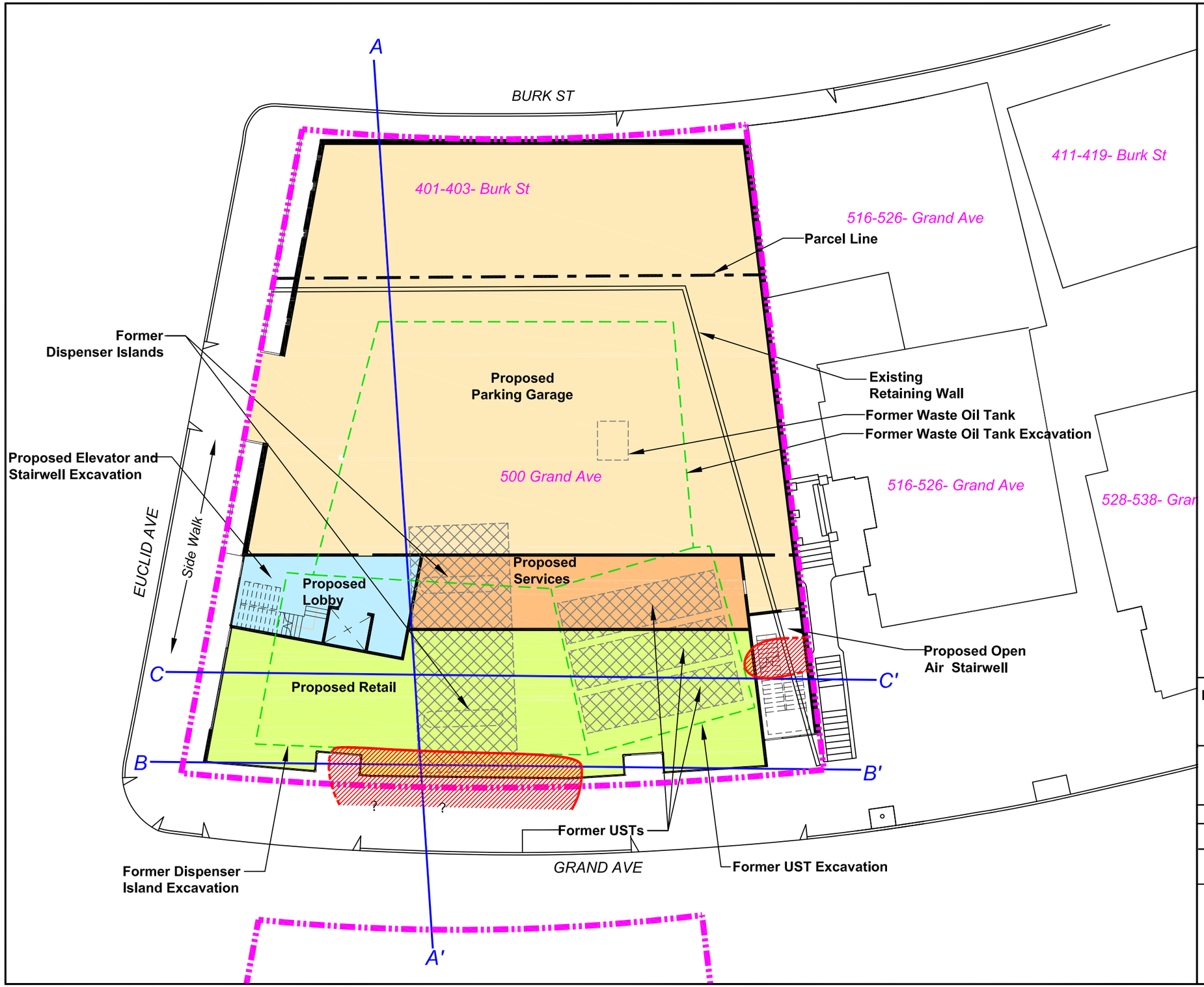
0 20 40
HORIZONTAL SCALE IN FEET

SGI environmental THE SOURCE GROUP, INC.
3478 BUSKIRK AVENUE, SUITE 100
PLEASANT HILL, CA 94523

N

FIGURE 2-1

S:\Clients A - F\Ellwood Commercial Real Estate\Soil Management Plan\Figures\Fig 2-1-Proposed Redevelment Footprint.dwg



LEGEND

- Property Line
- Base of UST, Dispenser, and Waste Oil Tank Over-Excavation
- A——A′ Cross Section location
- Aerial Extent of Residual Petroleum Hydrocarbons in Soil and Groundwater >Commercial Exceedance

PROPOSED REDEVELOPMENT FOOTPRINT WITH GROUND FLOOR LAYOUT AND RESIDUAL PETROLEUM HYDROCARBON IMPACTS

500 GRAND AVENUE
OAKLAND, CA

PROJECT NO.	DATE	DRAWN BY:	APP. BY:
01-ECR-001	03/21/16	ZA	GS

0 20 40
HORIZONTAL SCALE IN FEET

SGI environmental
THE SOURCE GROUP, INC.
3478 BUSKIRK AVENUE, SUITE 100
PLEASANT HILL, CA 94523

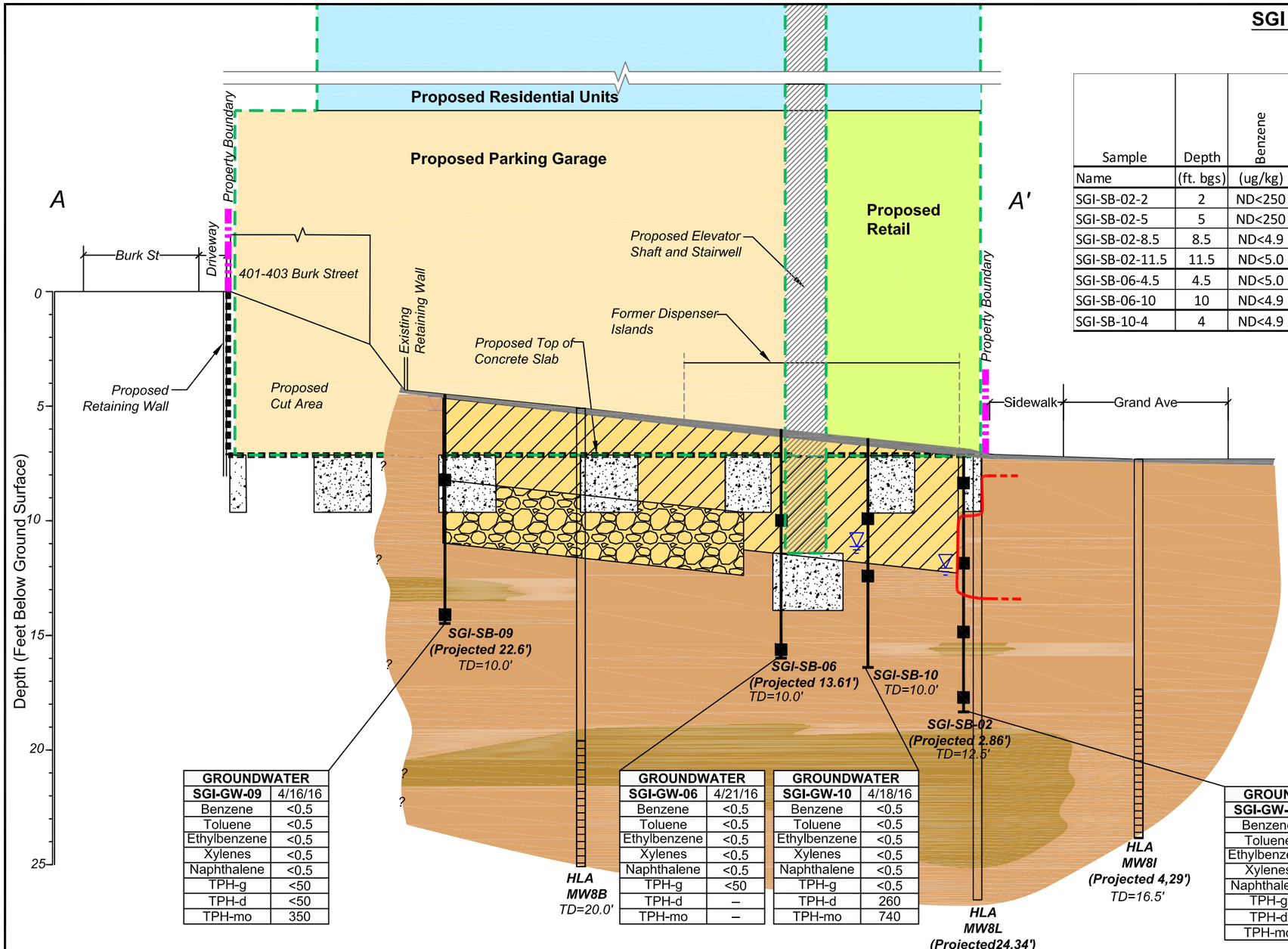
N

FIGURE 2-2

S:\Clients A - F\Ellwood Commercial Real Estate\Soil Management Plan\Figures\Fig.2-2-Proposed Redevelment Footprint with Ground Floor Layout & Residual Petroleum Hidrocarbon Impacts.dwg

SGI SOIL ANALYTICAL SUMMARY
APRIL 2016

Sample	Depth	Benzene	Toluene	Ethylbenzene	Total Xylenes	Naphthalene	TPHg	TPHd	TPHmo
Name	(ft. bgs)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(mg/kg)	(mg/kg)	(mg/kg)
SGI-SB-02-2	2	ND<250	ND<250	410	310	**3600**	510	610	77
SGI-SB-02-5	5	ND<250	ND<250	4300	5900	**3900**	550	150	ND<5.0
SGI-SB-02-8.5	8.5	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	3.2	6.1	ND<5.0
SGI-SB-02-11.5	11.5	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<0.98	ND<1.0	ND<5.0
SGI-SB-06-4.5	4.5	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<0.97	34	91
SGI-SB-06-10	10	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<0.96	2.3	ND<5.0
SGI-SB-10-4	4	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<1.1	11	88



GROUNDWATER	
SGI-GW-09	4/16/16
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
Xylenes	<0.5
Naphthalene	<0.5
TPH-g	<50
TPH-d	<50
TPH-mo	350

GROUNDWATER	
SGI-GW-06	4/21/16
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
Xylenes	<0.5
Naphthalene	<0.5
TPH-g	<50
TPH-d	–
TPH-mo	–

GROUNDWATER	
SGI-GW-10	4/18/16
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
Xylenes	<0.5
Naphthalene	<0.5
TPH-g	<0.5
TPH-d	260
TPH-mo	740

GROUNDWATER	
SGI-GW-02	4/16/16
Benzene	**55**
Toluene	4.5
Ethylbenzene	**130**
Xylenes	141.3
Naphthalene	**72**
TPH-g	6,100
TPH-d	3,000
TPH-mo	<300

Notes:
1. Sample concentration in micrograms per liter (µg/L).
2. TPHg = Total petroleum hydrocarbons as gasoline.
3. TPHd = Total petroleum hydrocarbons as diesel.
4. TPHmo = Total petroleum hydrocarbons as motor oil.
5. Bold values exceed residential ESLs.
6. Bold and highlighted values exceed commercial ESLs.

LEGEND

- Backfill
- Pea Gravel
- Asphalt
- Sand / Gravels
- Sands
- Silt / Clay
- Groundwater Level (First Encounter)
- Depth to Groundwater (Hi/Lo Range)
- Proposed Top Of Concrete Slab
- Proposed Building Envelope
- Cement Footers
- Approximate Extent of Soil Impacts >Commercial ESLs
- Soil Sample Location
- Screened Interval

1"=5'
1"=20'

500 GRAND AVENUE
OAKLAND, CA

PROJECT NO.	DATE	DRAWN BY:	APP. BY:
01-ECR-001	04/01/16	ZA	GS

GROUNDWATER CROSS SECTION A-A'
(CURRENT SITE CONDITIONS)
(Looking East From Euclid Ave.)

SGI environmental THE SOURCE GROUP, INC.
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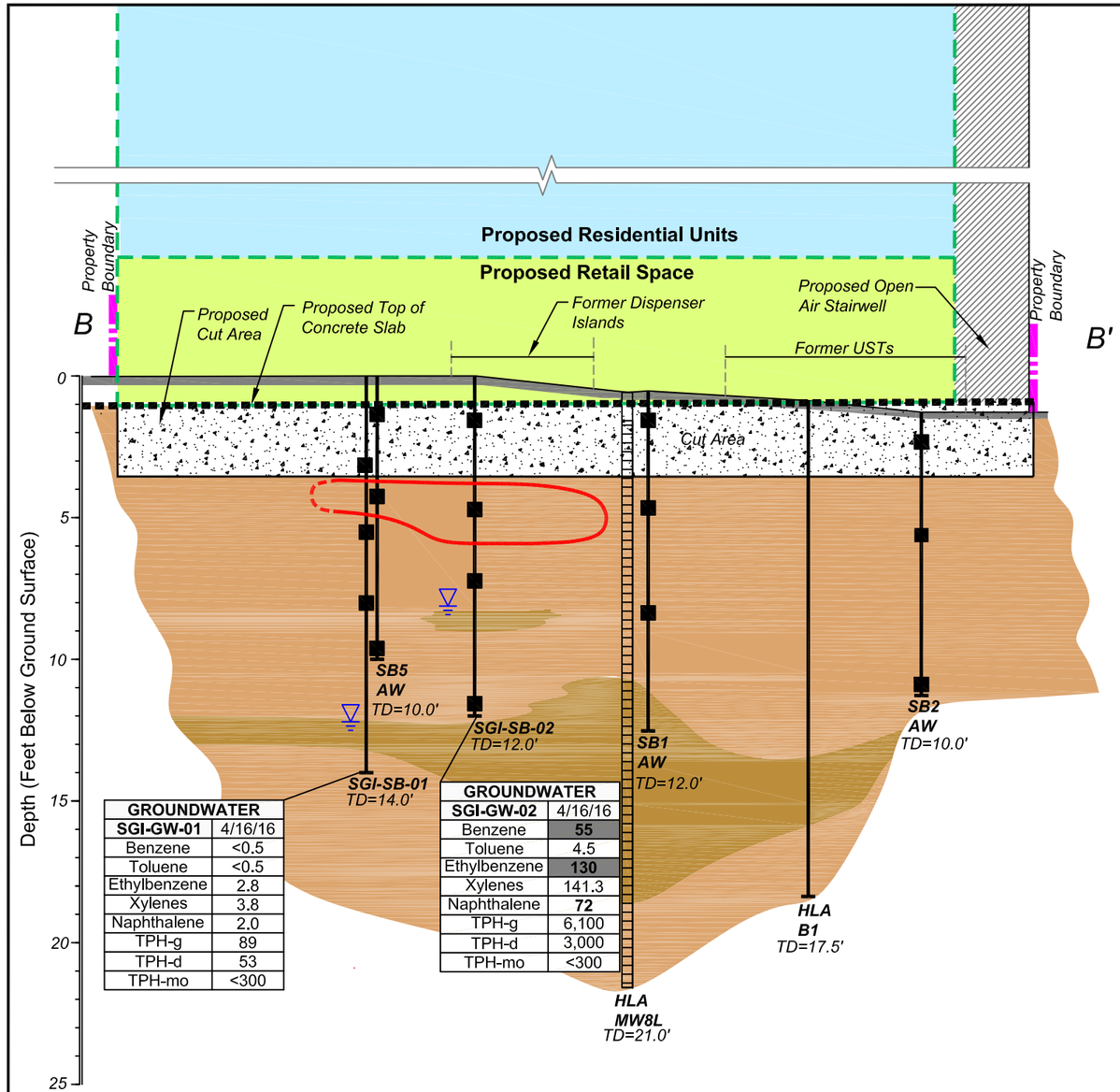
PLEASANT HILL, CA 94523

N

FIGURE 2-3

S:\Clients A - F\Ellwood Commercial Real Estate\Soil Management Plan\Figures\Fig 2-3-Cross Section A-A'.dwg



SGI AND ALL WESTSOIL ANALYTICAL SUMMARY
APRIL 16, 2016 & NOVEMBER 23, 2015

Sample	Depth	Benzene	Toluene	Ethylbenzene	Total Xylenes	Naphthalene	TPHg	TPHd	TPHmo
Name	(ft. bgs)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(mg/kg)	(mg/kg)	(mg/kg)
SGI-SB-01-3	3	ND<250	ND<250	ND<250	ND<250	2600	590	**2100**	ND<50
SGI-SB-01-5.5	5.5	ND<250	ND<250	2300	5710	1800	230	60	ND<5.0
SGI-SB-01-8.5	8.5	ND<5.0	ND<5.0	ND<5.0	ND<5.0	6.6	1.4	1.1	ND<5.0
SGI-SB-01-10	10	ND<4.4	ND<4.4	ND<4.4	ND<4.4	ND<4.4	ND<0.94	2.0	ND<5.0
SGI-SB-02-2	2	ND<250	ND<250	410	310	3600	510	610	77
SGI-SB-02-5	5	ND<250	ND<250	4300	5900	3900	550	150	ND<5.0
SGI-SB-02-8.5	8.5	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	3.2	6.1	ND<5.0
SGI-SB-02-11.5	11.5	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<0.98	ND<1.0	ND<5.0
AW SB-1	1.5	ND<5.0	ND<5.0	ND<5.0	ND<5.0	--	ND<0.25	ND<1.0	ND<5.0
AW SB-1	8.5	ND<5.0	ND<5.0	ND<5.0	ND<5.0	3.7	2.5	16	390
AW SB-2	1.5	ND<5.0	ND<5.0	ND<5.0	ND<5.0	--	110	30	5.4
AW SB-2	10	ND<5.0	ND<5.0	ND<5.0	ND<5.0	--	ND<0.25	ND<1.0	ND<5.0
AW SB-5	1.5	ND<5.0	ND<5.0	ND<5.0	ND<5.0	--	ND<0.25	1.5	36
AW SB-5	4.5	ND<5.0	ND<5.0	3	6.6	6.5	200	170	230

Notes:
1. Sample concentration in micrograms per liter (µg/L).
2. TPHg = Total petroleum hydrocarbons as gasoline.
3. TPHd = Total petroleum hydrocarbons as diesel.
4. TPHmo = Total petroleum hydrocarbons as motor oil.
5. Bold values exceed residential ESLs.
6. Bold am highlighted values exceed commercial ESLs.

LEGEND

- Backfill
- Pea Gravel
- Asphalt
- Sand / Gravels
- Sands
- Silt / Clay
- Groundwater Level (First Encounter)
- Depth to Groundwater (Hi/Lo Range)
- Proposed Top Of Concrete Slab
- Proposed Building Envelope
- Cement Footers
- Approximate Extent of Soil Impacts >Commercial ESLs
- Soil Sample Location
- Screened Interval

1"=5'
1"=20'

500 GRAND AVENUE
OAKLAND, CA

PROJECT NO.	DATE	DRAWN BY:	APP. BY:
01-ECR-001	04/01/16	ZA	GS

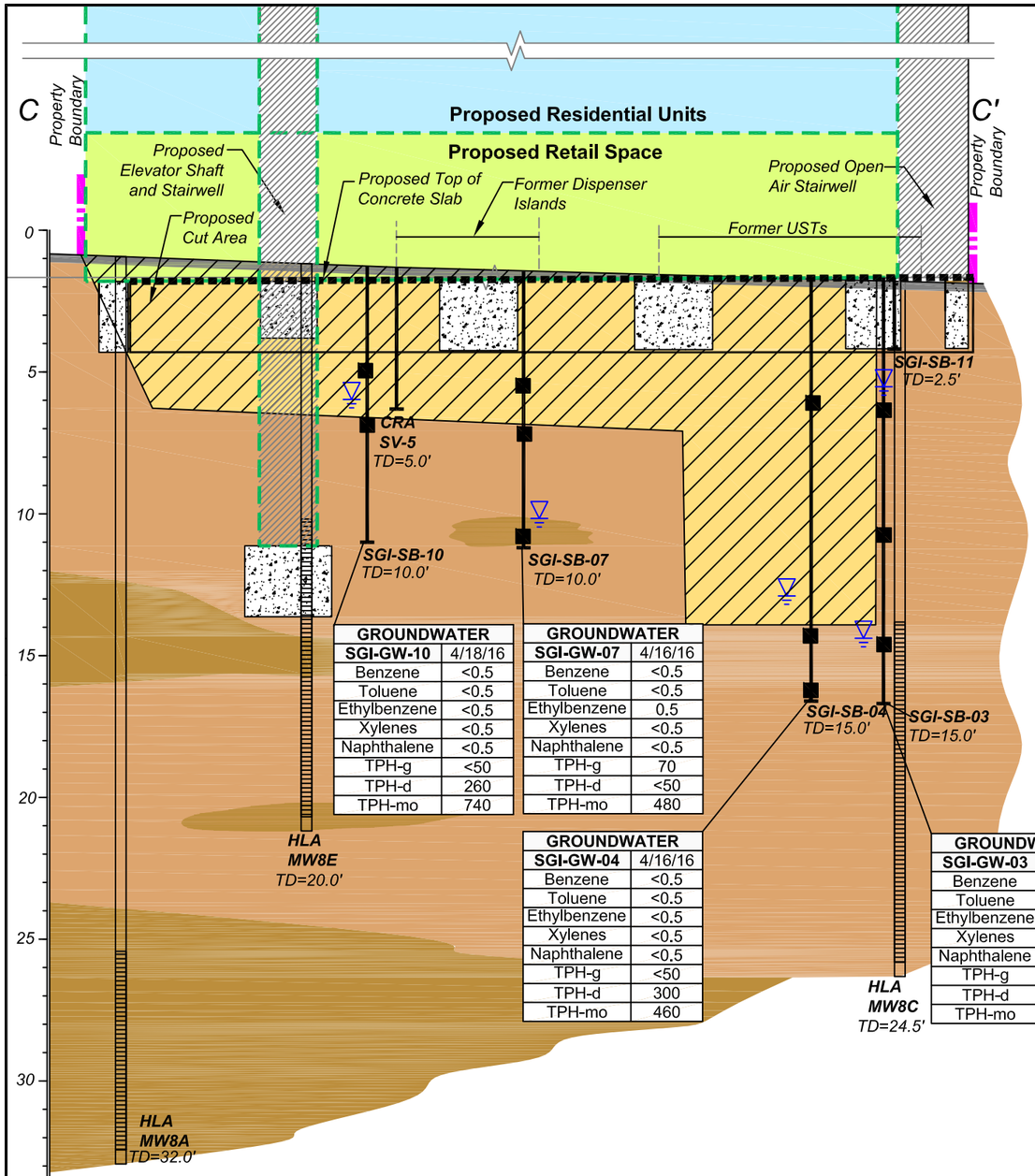
CROSS SECTION B-B'
(WITH PROPOSED FOOTERS AND FOUNDATION)

SGI environmental
THE SOURCE GROUP, INC.
3478 BUSKIRK AVENUE, SUITE 100
PLEASANT HILL, CA 94523

N

FIGURE 2-4

S:\Clients A - F\Ellwood Commercial Real Estate\Soil Management Plan\Figures\Fig.2-4-Cross Section B-B'.dwg



SGI SOIL ANALYTICAL SUMMARY
APRIL 16, 2016

Sample	Depth	Benzene	Toluene	Ethylbenzene	Total Xylenes	Naphthalene	TPHg	TPHd	TPHmo
Name	(ft. bgs)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(mg/kg)	(mg/kg)	(mg/kg)
SGI-SB-03-5	5	ND<4.7	ND<4.7	ND<4.7	ND<4.7	4.8	ND<1.1	2.7	ND<5.0
SGI-SB-03-13	13	ND<4.8	ND<4.8	ND<4.8	ND<4.8	ND<4.8	ND<0.97	1.8	ND<5.0
SGI-SB-04-4.5	4.5	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<1.0	23	71
SGI-SB-04-4.5D	4.5	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<1.1	31	100
SGI-SB-04-12.5	12.5	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<1.1	2.3	ND<5.0
SGI-SB-07-4.5	4.5	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<1.1	24	86
SGI-SB-10-4	4	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<1.1	11	88
SGI-SB-11-2.5	2.5	ND<10	ND<10	ND<10	ND<10	ND<10	27	30	32

Notes:
1. Sample concentration in micrograms per liter (µg/L).
2. TPHg = Total petroleum hydrocarbons as gasoline.
3. TPHd = Total petroleum hydrocarbons as diesel.
4. TPHmo = Total petroleum hydrocarbons as motor oil.
5. Bold values exceed residential ESLs.
6. Bold am highlighted values exceed commercial ESLs.

LEGEND
- Backfill
- Pea Gravel
- Asphalt
- Sand / Gravels
- Sands
- Silt / Clay
- Groundwater Level (First Encounter)
- Depth to Groundwater (Hi/Lo Range)
- Proposed Top Of Concrete Slab
- Proposed Building Envelope
- Cement Footers
- Approximate Extent of Soil Impacts >Commercial ESLs
- Soil Sample Location
- Screened Interval

1"=5'
1"=20'

500 GRAND AVENUE
OAKLAND, CA

PROJECT NO.	DATE	DRAWN BY:	APP. BY:
01-ECR-001	04/01/16	ZA	GS

CROSS SECTION C-C'
(WITH PROPOSED FOOTERS AND FOUNDATION)

SGI environmental
THE SOURCE GROUP, INC.
3478 BUSKIRK AVENUE, SUITE 100
PLEASANT HILL, CA 94523

N

FIGURE 2-5

S:\Clients A - F\Ellwood Commercial Real Estate\Soil Management Plan\Figures\Fig.2-5-Cross Section C-C'.dwg

Residual Petroleum Hydrocarbon Concentrations > Commercial ESLs

Company ID	Boring/ Sample ID	Sample Depth (ft bgs)	Sample Date	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPHg	TPHd	Napthalene
AW	SB-2	1-1.5	11/23/2015	<0.005	<0.005	<0.005	<0.005	110	30	**3.7**
AW	SB-5	4-4.5	11/23/2015	<0.005	<0.005	3	6.6	200	170	**6.5**
HLA	MW-8J	5.5	1/9/1990	<0.05	<0.05	**25**	9.2	**2,100**	--	--
CRA	S-2	4	11/20/2006	**0.41**	17	**36**	170	**3,800**	580	--
CRA	SV-7	5	3/18/2008	0.11	0.059	**15**	19	**1,400**	--	--
CEW	WS-2	5	5/5/1992	**1.1**	3.1	2.2	9.7	72	--	--
CEW	WS-4	5	5/5/1992	**22**	28	**30**	100	**1,000**	--	--
CEW	WS-5	5	5/5/1992	**11**	23	**9.9**	42	480	--	--
SGI	SB-01	3	4/16/2016	ND < 0.25	ND < 0.25	ND < 0.25	ND < 0.25	590	**2100**	**2.6**
SGI	SB-02	2	4/16/2016	ND < 0.25	ND < 0.25	0.41	0.31	510	610	**3.6**
SGI	SB-02	5	4/16/2016	ND < 0.25	ND < 0.25	4.3	5.9	550	150	**3.9**
ESL	**Residential**	**<10 ft bgs**		**0.23**	**970**	**5.1**	**560**	**740**	**230**	**1.8**
ESL	**Comm/Ind**	**<10 ft bgs**		**1**	**4600**	**22**	**2400**	**3900**	**1100**	**7.9**
ESL	Construction	<10 ft bgs		24	3900	480	2300	2700	850	76

Notes:
Total petroleum hydrocarbons as diesel (TPHd) and gasoline (TPHg) by EPA Method 8015
Benzene, toluene, ethylbenzens and xylenes (BTEX) by EPA Method 8020 or 8260B
<1.0 = Not detected at or above stated laboratory reporting limits
All data and ESLs expressed as mg/Kg
ESL = San Francisco Regional Water Quality Control Board Environmental Screening Levels
-- = Not Analyzed
Bold at or above Residential ESLs
Bold & Shaded at or above Commercial ESLs

BURK ST
EUCLID AVE
Side Walk
401-403- Burk St
500 Grand Ave
516-526- Grand Ave
528-538- Grand Ave
GRAND AVE
Parcel Line
Former Dispenser Islands
Proposed Elevator
Proposed Stairwell
Existing Retaining Wall
Former Waste Oil Tank
Proposed Open Air Stairwell
Former UST
A
A'
B
B'
C
C'
SGI-SB-01
SGI-SB-02
SGI-SB-03
SGI-SB-04
SGI-SB-05
SGI-SB-06
SGI-SB-07
SGI-SB-08
SGI-SB-09
SGI-SB-10
SGI-SB-11
HLA MW8A
HLA MW8B
HLA MW8C
HLA MW8D
HLA MW8E
HLA MW8F
HLA MW8G
HLA MW8H
HLA MW8I
HLA MW8J
HLA MW8K
HLA MW8L
CEW SW1
CEW SW2
CEW SW3
CEW SW4
CEW SW5
CEW SW7
CEW SB6
CEW SB7
B1 CEW
B2 CEW
B3 CEW
B4 CEW
B5 CEW
B6 CEW
B7 CEW
B8 CEW
B9 CEW
B10 CEW
BE1 CEW
BE2 CEW
BE4 CEW
BE5 CEW
BE6 CEW
BE7 CEW
BE8 CEW
BE9 CEW
BE10 CEW
WS1 CEW
WS2 CEW
WS3 CEW
WS4 CEW
WS5 CEW
SS1 CEW
SS2 CEW
SS4 CEW
SS5 CEW
SS6 CEW
SS9 CEW
AW SB4
SB1 AW
SB2 AW
SB3 AW
HLA B5
HLA B10
S-1 CRA
S-2 CRA
SV-5 CRA
SV-7 CRA
SV-8 CRA

LEGEND

- Property Line
- Limit of Depth of Excavation
- B7 HLA — HLA (Harding Lawson & Associates) Soil Boring Locations
- B7 CEW — CEW (Converse Environment West) Soil Boring Locations
- B7 AW — AW (All West) Soil Boring Locations
- SV-5 CRA — CRA (Connestoga Rovers Associates) Soil Boring Location
- HLA MW8D — HLA (Harding Lawson & Associates) Monitoring Well Location
- HLA MW8B — Destroyed Monitoring Well
- 10' — Sample Depth in Ft BGS (Feet Below Ground Surface)
- SGI-SB-01 — SGI Soil Boring Locations
- Residuals Petroleum Hydrocarbon Commercial ESL Exceedance
- Groundwater Hotspot Pre-over-excavation
- Aerial Extent of Residual Petroleum Hydrocarbons in Soil and Groundwater
- Proposed Cement Footers
- A——A' Cross Section location

Note:
Sampling event - SGI-SB1÷SB11-April 2016
AW-SB1÷SB5-2015
CRA-S1÷SV8-2006
CEW-SW÷SW7-1993
CEW-B1÷B10-1993
CEW-BE1÷BE10-1992
CEW-WS2÷WS5-1992
CEW-SS1÷SS9-1992
HLA-MW8A÷MW8L-1989

SUPPLEMENTAL INVESTIGATION SAMPLE LOCATIONS

500 GRAND AVENUE
OAKLAND, CA

PROJECT NO.	DATE	DRAWN BY:	APP. BY:
01-ECR-001	03/21/16	ZA	GS

0 20 40
HORIZONTAL SCALE IN FEET

SGI environmental
THE SOURCE GROUP, INC.
3478 BUSKIRK AVENUE, SUITE 100
PLEASANT HILL, CA 94523

N

FIGURE 2-6

S:\Clients A - F\Ellwood Commercial Real Estate\Soil Management Plan\Figures\Fig.2-6-Supplemental Investigation(Proposed Sample Locations).dwg

TABLES

Table 2-1
Summary of Recent Soil Data
Ellwood Commercial Real Estate
500 Grand Avenue, Oakland, California

			Total Petroleum Hydrocarbons			Volatile Organic Compounds																		Semi-Volatile Organic Compounds		
Sample			TPHg	TPHd	TPHmo	Acetone	MTBE	2-Butanone	1,2-Dichloroethane	Benzene	Toluene	Ethylbenzene	m,p-xylenes	o-xylenes	Total Xylenes	Isopropylbenzene[4]	Propylbenzene[4]	1,3,5-Trimethylbenzene[4]	1,2,4-Trimethylbenzene[4]	sec-butylbenzene[4]	para-isopropyl toluene	n-bubtylbenzene[4]	Naphthalene	Naphthalene	2-Methylnaphthalene	Phenanthrene
Name	Date	Depth	(mg/kg)	(mg/kg)	(mg/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
CRWQCB Direct Exposure Shallow Soil ESLs[1] Residential			**7.4E+02**	**2.3E+02**	**1.1E+04**	**5.9E+07**	**4.2E+04**	**--**	**3.7E+02**	**2.3E+02**	**9.7E+05**	**5.1E+03**	**--**	**--**	**5.6E+05**	**1.9E+06**	**3.8E+06**	**7.8E+05**	**5.8E+04**	**7.8E+06**	**--**	**3.9E+06**	**3.3E+03**	**3.3E+03**	**2.4E+05**	**--**
CRWQCB Direct Exposure Shallow Soil ESLs[2] Commercial/Industrial			**3.9E+03**	**1.1E+03**	**1.4E+05**	**6.3E+08**	**1.8E+05**	**--**	**1.6E+03**	**1.0E+03**	**4.6E+06**	**2.2E+04**	**--**	**--**	**2.4E+06**	**9.9E+06**	**2.4E+07**	**1.2E+07**	**2.4E+05**	**1.2E+08**	**--**	**5.8E+07**	**1.4E+04**	**1.4E+04**	**3.0E+06**	**--**
CRWQCB Direct Exposure Shallow Soil ESLs[3] Construction			**7.4E+03**	**3.8E+03**	**3.2E+04**	**3.2E+05**	**3.7E+03**	**--**	**3.7E+01**	**2.4E+01**	**2.8E+04**	**4.8E+02**	**--**	**--**	**6.5+04**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**3.5E+02**	**3.5E+02**	**6.7E+02**	**--**
SGI-SB-01-3	4/16/2016	3	590	**2100**	ND<50	ND<1000	ND<250	ND<500	ND<250	ND<250	ND<250	ND<250	ND<250	ND<250	ND<250	660	3600	ND<250	ND<250	980	300	4800	2600	2300	5500	760
SGI-SB-01-5.5	4/16/2016	5.5	230	60	ND<5.0	ND<1000	ND<250	ND<500	ND<250	ND<250	ND<250	2300	5300	410	5710	290	1300	2300	7500	ND<250	ND<250	810	1800	1500	1200	ND<66
SGI-SB-01-8.5	4/16/2016	8.5	1.4	1.1	ND<5.0	36	ND<5.0	ND<9.9	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	6.9	ND<5.0	ND<5.0	ND<5.0	6.6	ND<66	ND<66	ND<66
SGI-SB-01-10	4/16/2016	10	ND<0.94	2.0	ND<5.0	ND<18	ND<4.4	ND<8.8	ND<4.4	ND<4.4	ND<4.4	ND<4.4	ND<4.4	ND<4.4	ND<4.4	ND<4.4	ND<4.4	ND<4.4	ND<4.4	ND<4.4	ND<4.4	ND<4.4	ND<4.4	ND<67	ND<67	ND<67
SGI-SB-02-2	4/16/2016	2	510	**610**	77	ND<1000	ND<250	ND<500	ND<250	ND<250	ND<250	410	310	ND<250	310	520	2400	ND<250	ND<250	670	ND<250	4200	**3600**	1100	1300	ND<66
SGI-SB-02-5	4/16/2016	5	550	150	ND<5.0	ND<1000	ND<250	ND<500	ND<250	ND<250	ND<250	4300	5900	ND<250	5900	700 J	2000 J	3700	15000	620 J	1100	2100	**3900**	3200	1300	ND<660
SGI-SB-02-8.5	4/16/2016	8.5	3.2	6.1	ND<5.0	31	ND<4.9	ND<9.8	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<67	ND<67	ND<67
SGI-SB-02-11.5	4/16/2016	11.5	ND<0.98	ND<1.0	ND<5.0	ND<20	ND<5.0	ND<10	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<66	ND<66	ND<66
SGI-SB-03-5	4/16/2016	5	ND<1.1	2.7	ND<5.0	83	ND<4.7	37	ND<4.7	ND<4.7	ND<4.7	ND<4.7	ND<4.7	ND<4.7	ND<4.7	ND<4.7	ND<4.7	ND<4.7	ND<4.7	ND<4.7	ND<4.7	ND<4.7	4.8	100	100	ND<66
SGI-SB-03-13	4/16/2016	13	ND<0.97	1.8	ND<5.0	ND<19	ND<4.8	ND<9.6	ND<4.8	ND<4.8	ND<4.8	ND<4.8	ND<4.8	ND<4.8	ND<4.8	ND<4.8	ND<4.8	ND<4.8	ND<4.8	ND<4.8	ND<4.8	ND<4.8	ND<4.8	ND<67	ND<67	ND<67
SGI-SB-04-4.5	4/16/2016	4.5	ND<1.0	23	71	ND<19	ND<4.9	ND<9.7	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	--	--	--
SGI-SB-04-4.5D	4/16/2016	4.5	ND<1.1	31	100	ND<19	ND<4.6	ND<9.3	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<4.6	--	--	--
SGI-SB-04-12.5	4/16/2016	12.5	ND<1.1	2.3	ND<5.0	ND<19	ND<4.9	ND<9.7	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	--	--	--
SGI-SB-05-4	4/16/2016	4	ND<1.0	16	51	ND<20	ND<4.9	ND<9.8	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	--	--	--
SGI-SB-06-4.5	4/16/2016	4.5	ND<0.97	34	91	ND<20	ND<5.0	ND<9.9	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	--	--	--
SGI-SB-06-10	4/16/2016	10	ND<0.96	2.3	ND<5.0	ND<20	ND<4.9	ND<9.8	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	--	--	--
SGI-SB-07-4.5	4/16/2016	4.5	ND<1.1	24	86	ND<19	ND<4.9	ND<9.7	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	--	--	--
SGI-SB-08-3	4/16/2016	3	ND<0.94	2.7	26	ND<20	ND<4.9	ND<9.8	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<66	ND<66	ND<66
SGI-SB-08-7	4/16/2016	7	ND<0.99	31	130	ND<18	ND<4.6	ND<9.2	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<67	ND<67	ND<67
SGI-SB-10-4	4/16/2016	4	ND<1.1	11	88	ND<20	ND<4.9	ND<9.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	--	--	--
SGI-SB-11-2.5	4/22/2016	2.5	27	30	32	ND<41	ND<10	ND<20	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<130	230	ND<130
AW SB-1	11/23/2015	1.5	ND<0.25	ND<1.0	ND<5.0	--	--	--	--	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	--	--	--	--	--	--	--	--	--	--	--
AW SB-1	11/23/2015	8.5	2.5	16	390	--	--	--	--	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	--	--	--	--	--	--	--	--	--	--	--
AW SB-2	11/23/2015	1.5	110	30	5.4	--	--	--	--	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	--	--	--	--	--	--	--	**3700**	**3700**	--	--
AW SB-2	11/23/2015	10	ND<0.25	ND<1.0	ND<5.0	--	--	--	--	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	--	--	--	--	--	--	--	--	--	--	--
AW SB-3	11/23/2015	1.5	ND<0.25	ND<1.0	11	--	--	--	--	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	--	--	--	--	--	--	--	--	--	--	--
AW SB-3	11/23/2015	10	ND<0.25	ND<1.0	ND<5.0	--	--	--	--	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	--	--	--	--	--	--	--	--	--	--	--
AW SB-4	11/23/2015	1.5	ND<0.25	1.1	5.5	--	--	--	--	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	--	--	--	--	--	--	--	--	--	--	--
AW SB-5	11/23/2015	1.5	ND<0.25	1.5	36	--	--	--	--	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	--	--	--	--	--	--	--	--	--	--	--
AW SB-5	11/23/2015	4.5	200	170	230	--	--	--	--	ND<5	ND<5	3000	--	--	6600	--	--	--	--	--	--	--	**6500**	**6500**	--	--

Notes:

Bold font indicates value exceeds soil ESL for residential land use.

Bold font and shaded cell indicates value exceeds soil ESL for commercial/industrial land use.

J = Estimated Value

"--" = Not analyzed

[1] Shallow Soil Screening Levels (<3m bgs), Residential - groundwater is not a current or potential drinking water resource (CRWQCB, 2016)

[2] Shallow Soil Screening Levels (<3m bgs), Commercial/Industrial - groundwater is not a current or potential drinking water resource (CRWQCB, 2016)

[3] Shallow Soil Screening Levels (<3m bgs),Construction - groundwater is not a current or potential drinking water resource (CRWQCB, 2016)

[4] CRWQCB ESL was not available; therefore, the USEPA RSL was used (USEPA, 2015).

Table 2-2
Summary of Recent Grab Groundwater Data
Ellwood Commercial Real Estate
500 Grand Avenue, Oakland, California

Sample			Total Petroleum Hydrocarbons			Volatile Organic Compounds																	Semi-Volatile Organic Compounds	
			TPHg	TPHd	TPHmo	Acetone	MTBE	1,2-Dichloroethane	Benzene	Toluene	Ethylbenzene	m,p-xylenes	o-xylenes	Total Xylenes	Isopropylbenzene	Propylbenzene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	sec-butylbenzene	para-isopropyl toluene	n-bubtylbenzene	Naphthalene	Naphthalene	2-Methylnaphthalene
Name	Date	First Water (ft. bgs)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
CRWQCB Vapor Intrusion Shallow Groundwater ESLs[1] Residential Land Use			--	--	--	**3.4E+07**	**1.2E+03**	**6.1E+00**	**1.1E+00**	**3.6E+03**	**1.3E+01**	--	--	**1.3E+03**	--	--	--	--	--	--	--	**2.0E+01**	**2.0E+01**	--
CRWQCB Vapor Intrusion Shallow Groundwater ESLs[2] Commercial/Industrial Land Use			--	--	--	**2.9E+08**	**1.1E+04**	**5.3E+01**	**9.7E+00**	**3.0E+04**	**1.1E+02**	--	--	**1.1E+04**	--	--	--	--	--	--	--	**1.7E+02**	**1.7E+02**	--
SGI-GW-01	4/16/2016	12.5	89	53	ND<300	ND<10	1.8	ND<0.5	ND<0.5	ND<0.5	2.8	3.8	ND<0.5	3.8	ND<0.5	0.8	0.8	3.5	ND<0.5	ND<0.5	0.7	2.0	ND<9.4	ND<9.4
SGI-GW-02	4/16/2016	5.5	6100	3000	ND<300	ND<20	ND<1.0	ND<1.0	**55**	4.5	**130**	140	1.3	141.3	18	30	41	170	5.8	10	8.4	**72**	**67**	ND<47
SGI-GW-03	4/21/2016	> 13	15000	--	--	240	ND<10	ND<10	**740**	110	**710**	1500	220	**1720**	28	86	160	560	ND<10	ND<10	42	**150**	--	--
SGI-GW-04	4/16/2016	11.5	ND<50	300	460	ND<10	0.6	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--
SGI-GW-05	4/16/2016	> 14	76	700	440	ND<10	0.9	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--
SGI-GW-06	4/21/2016	> 10	ND<50	--	--	ND<10	2.1	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--
SGI-GW-07	4/16/2016	9	70	ND<50	480	ND<10	5.9	ND<0.5	ND<0.5	ND<0.5	0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--
SGI-GW-08	4/16/2016	6.5	ND<50	ND<50	ND<300	ND<10	1.7	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<9.4	ND<9.4
SGI-GW-09	4/16/2016	1	ND<50	ND<50	350	ND<10	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--
SGI-GW-09 Dup	4/16/2016	1	ND<50	66	800	ND<10	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--
SGI-GW-10	4/18/2016	5	ND<50	260	740	ND<10	1.1	3.1	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--
AW SB-4	11/23/2015	> 4	ND<50	200	4400	--	--	--	ND<0.5	ND<0.5	ND<0.5	--	--	ND<0.5	--	--	--	--	--	--	--	--	--	--

Notes:
Bold font indicates value exceeds groundwater ESL for residential land use.
Bold font and shaded cell indicates value exceeds groundwater ESL for commercial/industrial land use.
"--" = Not analyzed
[1] Shallow Groundwater Screening Levels (<3m bgs), Sand Scenario, Residential Land Use (CRWQCB, 2016)
[2] Shallow Soil Screening Levels (<3m bgs), Sand Scenario, Commercial/Industrial Land Use (CRWQCB, 2016)

Table 2-3
Summary of Offsite Groundwater Data - June and October 2009
Ellwood Commercial Real Estate
500 Grand Avenue, Oakland, California

Sample			Total Petroleum Hydrocarbons		Volatile Organic Compounds					
Name	Date	Depth to Water (ft. bgs)	TPHg (ug/L)	TPHd (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	Methyl tert Butyl Ether (by 8020) (ug/L)	Methyl tert Butyl Ether (by 8260) (ug/L)
SFBRWQCB Vapor Intrusion Shallow Groundwater ESLs[1] Aquatic Habitat Goal, Freshwater			**4.4E+02**	**6.4E+02**	**4.6E+01**	**1.3E+02**	**2.9E+02**	**--**	**6.6E+04**	**6.6E+04**
SFBRWQCB Vapor Intrusion Shallow Groundwater ESLs[2] Aquatic Habitat Goal,Saltwater			**3.7E+03**	**6.4E+02**	**3.5E+02**	**2.5E+03**	**4.3E+01**	**1.0E+02**	**8.0E+02**	**8.0E+02**
MW-8H	6/10/2009	3.66	<50	78	<0.5	<0.5	<0.5	<0.5	--	0.7
	10/1/2009	4.04	<50	640[a]	<0.5	<0.5	<0.5	<0.5	--	1
MW-8I	6/10/2009	6.31	420	360	23	<0.5	<0.5	<0.5	--	5
	10/1/2009	6.41	53	92[a]	2	<0.5	<0.5	<0.5	--	4
MW-8J	6/10/2009	6.41	<50	400	<0.5	<0.5	<0.5	<0.5	--	10
	10/1/2009	6.78	<50	<50[a]	<0.5	<0.5	<0.5	<0.5	--	<0.5
MW-8F	6/10/2009	12.41	<50	300	<0.5	<0.5	<0.5	<0.5	--	<0.5
	10/1/2009	10.40	<50	81[a]	<0.5	<0.5	<0.5	<0.5	--	<0.5
MW-8G	6/10/2009	12.35	<50	140	<0.5	<0.5	<0.5	<0.5	--	<0.5
	10/1/2009	11.94	<50	55[a]	<0.5	<0.5	<0.5	<0.5	--	<0.5

Notes:

[a] TPH-DRO with Silica Gel Cleanup

"--" = Not analyzed

[1] Groundwater Screening Levels, Aquatic Habitat Goal, Freshwater (CRWQCB, 2016)

[2] Groundwater Screening Levels, Aquatic Habitat Goal, Saltwater (CRWQCB, 2016)

APPENDIX A

ACEH *CLOSURE TRANSMITTAL, FUEL LEAK CASE NO: RO000391*

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Director

ENVIRONMENTAL HEALTH DEPARTMENT
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

September 21, 2011

Ms. Olivia Skance
Chevron Environmental Management
6001 Bollinger Canyon Road
San Ramon, CA 94583-2324
(sent via electronic mail to
Olivia.Skance@chevron.com)

Mr. Denis Brown
Shell Oil Products US
20945 S Wilmington Ave
Carson, CA 90810-1039
(sent via electronic mail to
denis.l.browm@shell.com)

Ms Jennifer Sedlachek
Exxon Mobil
4096 Piedmont Ave #194
Oakland, CA 94611
(sent via electronic mail to
jennifer.c.sedlachek@exxonmobil.com

Mr. Bradford Howard
Bradford Howard et al
516 Grand Avenue
Oakland, CA 94610-3515
(sent via electronic mail to
BHoward@howardtours.net)

Subject: Closure Transmittal; Fuel Leak Case No. RO0000391 (Global ID #T0600101355), Chevron #21-1137, 500 Grand, Oakland, CA 94611

Dear Ms.Skance, Mr. Brown, Ms. Sedlachek, and Mr. Howard:

This letter transmits the enclosed underground storage tank (UST) case closure letter in accordance with Chapter 6.75 (Article 4, Section 25299.37[h]). The State Water Resources Control Board adopted this letter on February 20, 1997. As of March 1, 1997, the Alameda County Environmental Health (ACEH) is required to use this case closure letter for all UST leak sites. We are also transmitting to you the enclosed case closure summary. These documents confirm the completion of the investigation and cleanup of the reported release at the subject site. The subject fuel leak case is closed.

SITE INVESTIGATION AND CLEANUP SUMMARY

Please be advised that the following conditions exist at the site:

- Residual petroleum hydrocarbon pollution in soil, groundwater, and soil vapor remains in place at this site. The extent of removal excavations was limited to south by sidewalk and utilities, and to east by the foundation of the retaining wall; residually contaminated soil with elevated concentrations remains in place along those perimeters (in soil up to 3,800 mg/kg TPHg, up to 580 mg/kg TPHd, and up to 22 mg/kg benzene remain). The extent of elevated concentrations in soil extends at least to the location of well MW-8J in Grand Avenue. Residual concentrations do not appear to significantly impact groundwater; however, elevated soil vapor is present but does not appear to have a receptor as currently developed. Upon redevelopment this data and current conclusions are to be revisited.

- Case closure for this fuel leak site is granted for the commercial land use only. If a change in land use to any residential or other conservative land use scenario occurs at this site, ACEH must be notified as required by Government Code Section 65850.2.2. ACEH will re-evaluate the case upon receipt of approved development/construction plans.

- Excavation or construction activities in areas of residual contamination require planning and implementation of appropriate health and safety procedures by the responsible party prior to and during excavation and construction activities.

- This site is to be entered into the City of Oakland Permit Tracking System due to the residual contamination on site.

If you have any questions, please call Mark Detterman at (510) 567-6876. Thank you.

Sincerely,

Donna L. Drogos, P.E.
Division Chief

Enclosures: 1. Remedial Action Completion Certificate
2. Case Closure Summary

cc: Ms. Cherie McCaulou (w/enc.), SF- Regional Water Quality Control Board, 1515 Clay Street, Suite 1400, Oakland, CA 94612, (sent via electronic mail to CMacaulou@waterboards.ca.gov)

Leroy Griffin, Oakland Fire Department 250 Frank H. Ogawa Plaza, Ste. 3341, Oakland, CA 94612-2032 (sent via electronic mail to lgriffin@oaklandnet.com)

Donna Drogos, (sent via electronic mail to donna.drogos@acgov.org)
Mark Detterman (sent via electronic mail to mark.detterman@acgov.org)
Case eFile, GeoTracker

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Director

ENVIRONMENTAL HEALTH DEPARTMENT
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
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September 21, 2011

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Chevron Environmental Management
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Mr. Bradford Howard
Bradford Howard et al
516 Grand Avenue
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(sent via electronic mail to
BHoward@howardtours.net)

REMEDIAL ACTION COMPLETION CERTIFICATE

Subject: Fuel Leak Case No. RO0000391 (Global ID #T0600101355), Chevron #21-1137, 500 Grand, Oakland, CA 94611

Dear Ms. Skance, Mr. Brown, Ms. Sedlachek, and Mr. Howard:

This letter confirms the completion of a site investigation and remedial action for the underground storage tank formerly located at the above-described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tank(s) are greatly appreciated.

Based on information in the above-referenced file and with the provision that the information provided to this agency was accurate and representative of site conditions, this agency finds that the site investigation and corrective action carried out at your underground storage tank(s) site is in compliance with the requirements of subdivisions (a) and (b) of Section 25296.10 of the Health and Safety Code and with corrective action regulations adopted pursuant to Section 25299.3 of the Health and Safety Code and that no further action related to the petroleum release(s) at the site is required.

This notice is issued pursuant to subdivision (h) of Section 25299.37 of the Health and Safety Code.

Please contact our office if you have any questions regarding this matter.

Sincerely,

Ariu Levi
Director
Alameda County Environmental Health

Alameda County Environmental Health

CASE CLOSURE SUMMARY
LEAKING UNDERGROUND FUEL STORAGE TANK - LOCAL OVERSIGHT PROGRAM

I. AGENCY INFORMATION

Date: March 3, 2011

Agency Name: Alameda County Environmental Health	Address: 1131 Harbor Bay Parkway
City/State/Zip: Alameda, CA 94502-6577	Phone: (510) 567- 6876
Responsible Staff Person: Mark Detterman	Title: Hazardous Materials Specialist

II. CASE INFORMATION

Site Facility Name: Chevron #21-1173 / Exxon #7-0237		
Site Facility Address: 500 Grand Avenue, Oakland, CA 94611		
RB Case No.: 01-1467	Local Case No.: STiD: 1109	LOP Case No.: RO0000391
URF Filing Date: 2/3/1989	Geotracker ID: T0600101355	APN: 10-780-15-8

Responsible Parties	Addresses	Phone Numbers
Ms. Staci Frerichs	Chevron Environmental Management 6001 Bollinger Canyon Road, Rm 3596 PO Box 6012 San Ramon, CA 94583-2324	925.543.2377
Mr. Denis Brown	Shell Oil Products US 20945 S. Wilmington Ave Caron, CA 90810-1039	707.865.0251
Ms. Jennifer Sedlachek	Exxon Mobil 4096 Piedmont Avenue # 194 Oakland, CA 94611	510.547.8196
Mr. Brandford Howard	Branford Howard et al 516 Grand Avenue Oakland, CA 94610-3515	Unknown

Tank I.D. No	Size in Gallons	Contents	Closed In Place/Removed?	Date
1	10,000	Gasoline	Removed	April 14, 1992
2	10,000	Gasoline	Removed	April 14, 1992
3	10,000	Gasoline	Removed	April 14, 1992
4	550	Waste Oil	Removed	September 25, 1990
Piping			Removed	April 14, 1992

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and Type of Release: Unknown. Waste oil tank reported intact at time of removal by inspector. No notes included in gasoline tank removal report or inspector notes.		
Site characterization complete? Yes	Date Approved By Oversight Agency: ----	
Monitoring wells installed? Yes	Number: 12	Proper screened interval? Yes*
Highest GW Depth Below Ground Surface: At ground surface / 5.43 **	Lowest Depth: 11.38 / 13.32 **	Flow Direction: Southwest
Most Sensitive Current Use: Potential drinking water source.		

* In general onsite wells MW-8K & MW-8L were submerged; offsite wells were generally appropriately screened. Previously decommissioned onsite wells MW-8A to MW-8E were not included in this analysis.

** Onsite well / Offsite well

Summary of Production Wells in Vicinity: There are no water supply wells within ¼-mile of the site. The closest water supply wells are located to the west in a cross- to upgradient direction at an approximate distance of 3,500 feet (0.66 miles). These two wells (1S4W26R3 & 1S4W35A2) are not expected to be receptors for this site.	
Are drinking water wells affected? No	Aquifer Name: East Bay Plain
Is surface water affected? No	Nearest SW Name: Lake Merritt; 200 - 250 feet south
Off-Site Beneficial Use Impacts (Addresses/Locations): None Reported	
Reports on file? Yes	Where are reports filed? Alameda County Environmental Health and City of Oakland Fire Department

TREATMENT AND DISPOSAL OF AFFECTED MATERIAL			
Material	Amount (Include Units)	Action (Treatment or Disposal w/Destination)	Date
Tank	One: 550-gallon (Waste Oil) Three: 10,000-gallon (Gas)	Assumed Disposed; Destination Unreported	Unknown
Piping	Unknown	Assumed Disposed; Destination Unreported	Unknown
Free Product	Used oil; unknown	Disposed with groundwater; batch extraction	Fall 1990
Soil	Used oil UST Removal	Assumed Disposed; Destination unreported	1990
	Gasoline UST Removal	540 cubic yards; pea gravel; BFI Class III Landfill, Livermore, CA	May 1992
	Station Overexcavation: May 1992 January 1993	1,100 cubic yards; Destination unreported 828 cubic yards; Redwood Landfill, Novato	Mid 1992 February 1993
Groundwater	5,000 gallons 5,000 gallons 25,000 gallons 5,000 gallons 6,300 gallons	Destination unreported Destination unreported Destination unreported Destination unreported Gibson Environmental, Redwood City	December 1989 June 1990 April 1992 Mid 1992 January 1993

MAXIMUM DOCUMENTED CONTAMINANT CONCENTRATIONS BEFORE AND AFTER CLEANUP
(Please see Attachments 1 through 6 for additional information on contaminant locations and concentrations)

Contaminant	Soil (ppm)		Water (ppb)	
	Before	After	Before	After
TPH (Gas)	3,800[1]	3,800	56,000	53
TPH (Diesel)	580	580	31,000[2]	92
TPH (Motor Oil)	330	ND	100,000[2]	<500
Oil and Grease	6,900	<330	NA	NA
Benzene	7,700	22[1]	20,000	2
Toluene	28	28	6,200	<0.5
Ethylbenzene	30	30	1,100	<0.5
Xylenes	100	100	4,900	<0.5
Heavy Metals (Cd, Cr, Pb, Ni, Zn)	48[3]	48[3]	NA	NA
MTBE (EPA 8260)[4]	<0.0005	<0.0005	4	1
Chlorinated Hydrocarbons (EPA 8010) Semi-Volatile Organics (EPA 8270)	<0.005[5] [6]	<0.005 ND (various)	<1 NA	<1 NA

NA Not analyzed

[1] South sidewall adjacent to sidewalk / street (Grand Avenue)

[2] Pit grab groundwater samples

[3] B-13 @ 2.5 feet feet bgs: <0.05 Cd ppm; 26 ppm Cr; <0.05 Pb ppm; 41 ppm Zn; <0.5 ppm Cd; 48 ppm Cr; 4.4 ppm Pb; 65 ppm Ni; 61 ppm Zn collected on a remedial excavation stockpile.

[4] MTBE only; TBA, TAME, ETBE, DIPE, EtOH, EDB, and EDC all not analyzed.

[5] Exception: TCE 0.06 ppm

[6] B-13 @ 2.5 feet bgs: 0.90 ppm naphthalene; 1.40 ppm 2 Methylnapthalene; 0.260 ppm Bis (2-ethylhexyl) phthalate

Site History and Description of Corrective Actions:

May 1988 Sensitive Receptor Survey: In May 1988, HLA performed a sensitive receptor survey of the site vicinity. The survey indicated there were no public water supply wells within 2,500 feet of the site, no private water supply wells within 1,000 feet of the site, and no schools within 1,000 feet of the site.

June 1988 Well Installations: In June 1988, HLA installed four groundwater monitoring wells (MW-8A through MW-8D) at the site to depths of 15.5, 20, 24.5, and 5 feet below grade surface (bgs), respectively. Well MW-8D was designed to intercept perched water just below the ground surface. An additional boring (B-8A) was also drilled to 32 feet bgs that was supposed to be the location of well MW-8A; however, the boring extended through two water-bearing zones (clayey sand at 12 and 23 feet bgs and thus was decommissioned. Well MW-8A was placed adjacent to boring B-8A and constructed to intercept water in the upper water-bearing zone. A soil sample was collected at approximately 1.3 feet bgs from boring MW-8D and analyzed for total petroleum hydrocarbons as gasoline (TPHg) and benzene, toluene, ethylbenzene, and xylenes (BTEX); TPHg, toluene, and xylenes were detected at concentrations of 10, 0.4, and 0.5 milligrams per kilogram (mg/kg), respectively. The initial groundwater samples collected from wells MW-8A, MW-8B, and MW-8C were analyzed for BTEX; well MW-8D was dry. Benzene (5.3 micrograms per liter [µg/L]) was only detected in well MW-8A. Concentrations of toluene, ethylbenzene, and xylenes (up to 13 µg/L) were detected in wells MW-8A and MW-8C. The results of the investigation were presented in HLA's *Subsurface Investigation* report dated July 20, 1988.

September 1988 Soil Gas Survey: In September 1988, HLA conducted a soil gas survey both on and offsite. A

total of 17 soil gas samples were collected from 16 locations at depths ranging from 2 to 6 feet bgs and analyzed for total hydrocarbons and BTEX using a gas chromatograph equipped with a flame ionization detector (FID). Elevated concentrations of total hydrocarbons (up to 360,000 µg/L) and benzene (up to 86,000 µg/L) were detected in two of the samples (SG-04 and SG-05) collected on the west side of the site. Elevated concentrations of total hydrocarbons (up to 1,400,000 µg/L) and benzene (up to 300,000 µg/L) were also detected in two of the samples (SG-12 and SG-15) collected to the south-southwest of the site. Groundwater samples collected from four observation wells (OB-1 through OB-4) located within the gasoline UST pit were also analyzed for total hydrocarbons and BTEX; total hydrocarbons (up to 32,000 µg/L) and benzene (up to 7,700 µg/L) were detected in all four of the samples. The results of the investigation were presented in HLA's *Quarterly Technical Report-First Quarter of 1989* dated May 31, 1989 and *Environmental Assessment Report* dated September 22, 1989.

October 1988 Subsurface Investigation and Well Installation: In October 1988, HLA drilled four exploratory borings (B-1 through B-4) to depths of 8 to 16.5 feet bgs in the vicinity of the gasoline USTs and dispensers. Well MW-8E was also installed adjacent to boring B-3. One soil sample was collected from borings B-1, B-3, B-4, and MW-8E (depths ranging from 3.5 to 6.5 feet bgs) and analyzed for TPHg and BTEX. TPHg (up to 750 mg/kg) was detected in several of the samples; concentrations of toluene, ethylbenzene, and xylenes (up to 26 mg/kg) were also detected. Benzene was only detected in the soil sample collected at 5.5 feet bgs from boring MW-8E (0.82 mg/kg). The initial groundwater sample collected from well MW-8E contained benzene at 1,400 µg/L. The results of the investigation were presented in HLA's *Quarterly Technical Report-First Quarter of 1989* dated May 31, 1989 and *Environmental Assessment Report* dated September 22, 1989.

March 1989 Subsurface Investigation, Well Destruction and Installations: In March 1989, HLA drilled an additional boring (B-5) on the west side of the site in the area where elevated hydrocarbon concentrations were previously detected in soil gas. Soil samples were collected from the boring at depths of 5.5, 10.5, and 16 feet bgs and analyzed for TPHg and BTEX, which were not detected. Well MW-8D was also decommissioned at this time due to a lack of water. Two offsite monitoring wells (MW-8F and MW-8G) were installed to 16.5 feet bgs across Grand Avenue to the south-southeast of the site. Soil samples were collected from boring MW-8F at 11 feet bgs and from boring MW-8G at 6 feet bgs and analyzed for TPHg and BTEX, which were not detected. BTEX were not detected in the initial groundwater samples collected from the wells. The results of the investigation were presented in HLA's *Quarterly Technical Report-First Quarter of 1989* dated May 31, 1989 and *Environmental Assessment Report* dated September 22, 1989.

Fourth Quarter 1989 Subsurface Investigation and Interim Remediation: During fourth quarter 1989, HLA drilled four additional onsite borings (B-6 through B-9) to depths of 3.5 to 5.5 feet bgs. A total of five soil samples were collected at various depths (ranging from 2 to 4.5 feet bgs) from the borings and analyzed for TPHg, BTEX, and TPH as diesel (TPHd). TPHg (up to 580 mg/kg) was only detected in the soil samples collected from borings B-7, B-8, and B-9; concentrations of one or more BTEX compounds (up to 50 mg/kg) were also detected. TPHd was only detected in the soil sample collected at 2.5 feet bgs from boring B-9 (460 mg/kg). Observation wells OB-3 and OB-4 were also re-sampled and elevated concentrations of TPHg (4,000 µg/L) and benzene (up to 500 µg/L) were detected. In December 1989, approximately 5,000 gallons of groundwater were pumped from the gasoline UST pit and disposed offsite as an interim remedial measure. This work was documented in HLA's *Quarterly Technical Report-Fourth Quarter of 1989* dated March 21, 1990.

First Quarter 1990 Subsurface Investigation and Well Installations: During first quarter 1990, HLA drilled seven additional borings. Four soil bores B-8K [offsite], and B-10 through B-12 [onsite] were installed to depths of 6 to 9.5 feet bgs. A total of 15 soil samples were collected at various depths (ranging from 1 to 8.5 feet bgs) from the borings and analyzed for TPHg, BTEX, and TPHd. Concentrations of TPHg (up to 84 mg/kg) and BTEX (up to 5.4 mg/kg) were detected in several of the soil samples. Elevated concentrations of TPHg were detected in the soil samples collected at 1.5 feet bgs from boring B-11 (2,900 mg/kg) and at 4.5 feet bgs from boring B-12 (1,200 mg/kg). TPHd (up to 94 mg/kg) was only detected in three of the samples. Three offsite monitoring wells (MW-8H, MW-8I, and MW-8J) were also installed. Four soil samples were collected at various depths from each well boring and analyzed for TPHg, BTEX, and TPHd. TPHg (up to 550 mg/kg) was detected in the majority of the soil samples. An elevated concentration of TPHg (2,100 mg/kg) was detected in the sample collected at 5.5 feet bgs from boring MW-8J. Concentrations of benzene and toluene were non-detectable in the sample from 5.5 feet, but ethylbenzene was present at 25 mg/kg in the sample. TPHd (up to 83 mg/kg) was only detected in three of the samples. TPHg was detected in the initial groundwater samples collected from wells MW-8H and MW-8I (460 µg/L and 580 µg/L, respectively). Benzene was detected in wells MW-8H, MW-8I, and MW-8J at 14.8 µg/L, 116 µg/L, and 2.7 µg/L, respectively. TPHd was only detected in well MW-8I (440 µg/L). This work was documented in HLA's *Quarterly Technical Report-First Quarter of 1990* dated June 13, 1990.

Second Quarter 1990 Subsurface Investigation: During second quarter 1990, HLA drilled two additional borings (B-13 and B-14) to depths of 4 and 4.5 feet bgs, respectively. The borings were located near the station building; boring B-14 was located adjacent to the waste oil UST. A total of five soil samples were collected at various depths from the borings and analyzed for TPHg, BTEX, TPHd, and TPH "other" (heavier-end hydrocarbons). The soil sample collected from boring B-13 at 2.5 feet bgs was also analyzed for halogenated volatile organic compounds (HVOCs), semi-VOCs, total oil and grease (TOG), and the metals cadmium, chromium, lead, and zinc. TPHg (up to 130 mg/kg) was detected in the majority of the soil samples. Concentrations of toluene, ethylbenzene, and xylenes (up to 5.4 mg/kg) were detected in a few of the samples. TPHd and benzene were not detected in any of the samples. Heavier-end petroleum hydrocarbons (constituents unknown) were detected in four of the samples at concentrations ranging from 62 to 1,000 mg/kg (B-13 at 2.5 feet bgs). The sample collected from boring B-13 at 2.5 feet bgs also contained the semi-VOCs naphthalene (0.9 mg/kg), 2-methylnaphthalene (1.4 mg/kg), and bis(2-ethylhexyl)phthalate (0.26 mg/kg); HVOCs were not detected with the exception of trichloroethane at 0.06 mg/kg; TOG was detected at 5,600 mg/kg; and the metals chromium and zinc were detected at 36 mg/kg and 41 mg/kg, respectively. In June 1990, during work on the waste oil UST, a layer of light non-aqueous phase liquid (LNAPL) was observed on the water in the backfill surrounding the tank. Exxon reportedly had the fluid in the excavation pumped out several times. This work was documented in HLA's *Quarterly Technical Report-Second Quarter of 1990* dated August 30, 1990.

September-October 1990 Waste Oil-UST Removal and Over-Excavation: In September 1990, the 500-gallon, single-walled fiberglass waste oil UST was removed from the site. No apparent holes or cracks were observed in the tank. The excavation was approximately 7.5 feet by 9.5 feet by 8 feet deep. Approximately 1/8 inch of LNAPL was observed on the water in the excavation. A water sample (WOT #1) was collected prior to pumping the water out of the excavation; the sample contained TPHg at 1,900 µg/L, TPHd at 1,400 µg/L, benzene at 320 µg/L, and TOG at 70 µg/L; HVOCs were not detected. Four soil samples (WO#2 through WO#5) were collected at 1.5 feet bgs from the sidewalls of the excavation and analyzed for TPHg, BTEX, TPHd, TOG, and HVOCs. Concentrations of TPHg (up to 15 mg/kg), TPHd (up to 20 mg/kg), and BTEX (benzene up to 0.054 mg/kg, ethylbenzene up to 0.75 mg/kg, and xylenes up to 1.5 mg/kg) were detected in several of the samples. TOG was detected in all four of the samples at concentrations ranging from 100 to 2,600 mg/kg. HVOCs were not detected in any of the samples.

In October 1990, over-excavation of impacted soil was conducted in the area of the soil sample with the highest TOG concentration (WO#3; western sidewall). The upper 3 feet of this sidewall was excavated laterally to the west an additional 3 feet. Additional soil samples were collected at 1.5 (WO#7) and 2 feet bgs (WO#6) from the new western sidewall, and from the bottom of the original excavation on the south side (WO#8). Samples WO#6 and WO#7 contained TOG at 100 mg/kg and 850 mg/kg, respectively. Sample WO#8 was analyzed for TPHg, BTEX, TPHd, and TOG; which were not detected except toluene at 0.016 mg/kg. Two clay pipes were encountered at approximately 1.5 feet bgs in the northwest and northeast corners of the excavation. The excavation was backfilled several days later. This work was documented in HLA's *Soil and Groundwater Sampling During Waste Oil Tank Removal* dated November 8, 1990.

January 1991 Clay Pipe Excavation: In January 1991, the clay pipes were removed. The excavation trench was located on the western side of the former waste oil UST and was approximately 15 feet long, 2.5 feet wide, and 4.5 feet deep. Two water samples (EP-01 and WP-01) were collected from the trench and analyzed for TPHg, TPHd, BTEX, and TPH as motor oil (TPHmo). TPHg (5,200 µg/L and 3,900 µg/L), TPHd (31,000 µg/L and 13,000 µg/L), benzene (280 µg/L and 320 µg/L), and TPHmo (100,000 µg/L and 17,000 µg/L) were detected in both samples. The water sample collected nearest the former UST contained the higher TPH concentrations. Four soil samples were also collected from the sidewalls and bottom of the trench (depths ranging from 1.5 to 4.5 feet bgs) and analyzed for TPHg, BTEX, TOG, and TPHd; three of the samples were also analyzed for TPHmo and HVOCs. Concentrations of TPHg (up to 100 mg/kg), TPHd (up to 190 mg/kg), and BTEX (up to 0.63 mg/kg) were detected in several of the samples. TOG was detected in all four of the samples at concentrations up to 630 mg/kg. TPHmo was detected in the three soil samples analyzed at concentrations up to 330 mg/kg. HVOCs were not detected in the three soil samples analyzed. A small excavation was also made on the east side of the UST excavation and an additional soil sample was collected at 1.5 feet bgs; this sample contained TPHg (1.1 mg/kg), TPHd (110 mg/kg), and TOG (780 mg/kg); BTEX were not detected. The excavation trench was continued to the door of the first service bay. An unknown volume of water was removed from the trench. This work was documented in HLA's *Results of Pipe Excavation and Recent Groundwater Analyses* dated February 12, 1991.

April - May 1992 Station Demolition, Gasoline UST Removal, and Overexcavation: In April 1992, the station was demolished and three 10,000-gallon, fiberglass gasoline USTs, two dispenser islands, and associated piping were removed from the site. No cracks or holes were observed in any of the tanks. During tank removal activities, approximately 25,000 gallons of impacted groundwater was pumped from the excavation and disposed offsite. Nine confirmation soil samples were collected from the bottom (10 feet bgs) and sidewalls (5 feet bgs) of the UST

excavation and analyzed for TPHg and BTEX. Concentrations of TPHg (up to 130 mg/kg) and BTEX (benzene up to 0.2 mg/kg, ethylbenzene up to 0.17 mg/kg, and xylenes up to 1.4 mg/kg) were detected in several of the samples. Three soil samples were also collected beneath the dispensers and one soil sample was collected beneath the product piping at depths of 5 or 6 feet bgs and analyzed for TPHg, BTEX, and TOG. TPHg and benzene were detected in the four samples at concentrations ranging from 7.8 to 2,100 mg/kg and 0.019 to 11 mg/kg, respectively. TOG was also detected in the four samples at concentrations ranging from 30 to 6,900 mg/kg. Approximately 540 cubic yards of impacted pea gravel was disposed offsite. Clean, imported fill material was then used to backfill the excavation. This work was documented in HLA's *Underground Storage Tank Removal* report dated June 8, 1992.

In May 1992, additional excavation was performed in the area of the former dispenser islands. The excavation was approximately 55 feet wide, 60 feet long, and 7 to 9 feet deep. Nine soil samples (BE-1, BE-2, and BE-4 through BE-10) were collected from the bottom of the excavation at depths of 4.5 to 9 feet bgs and analyzed for TPHg and BTEX. TPHg was only detected in one of the samples (1.1 mg/kg), and toluene, ethylbenzene, and xylenes generally were not detected in any of the samples with the exception of ethylbenzene in one sample (0.058 mg/kg). Concentrations of benzene (up to 0.043 mg/kg) were detected in several of the samples. Four soil samples (WS-2 through WS-5) were also collected at depths of 5 or 7.5 feet bgs from the western and southern sidewalls of the excavation. TPHg and BTEX were not detected in the sample (WS-3) collected from the western sidewall. TPHg (ranging from 72 to 1,000 mg/kg) and BTEX (benzene ranging from 1.1 to 22 mg/kg) were detected in the three samples collected from the southern sidewall. The excavation could not be extended further to the south without undermining the Grand Avenue sidewalk. A small area was also excavated under a former service bay near a former hydraulic hoist and sump. Soil samples were collected from the bottom (BE-3 at 4 feet bgs) and the western sidewall (WS-1 at 3 feet bgs) of this excavation; TPHg and BTEX were not detected in either of the samples. Approximately 1,100 cubic yards of soil were removed and disposed offsite. Clean, imported fill material was then used to backfill the excavations. This work was documented in HLA's *Quarterly Technical Report-Second Quarter of 1992* dated September 10, 1992.

August 1992 Well Destructions: In August 1992, onsite wells MW-8A and MW-8E were decommissioned by over-drilling. This work was documented in a HLA *Well Destruction Reports* letter dated August 14, 1992.

January 1993 Additional Over-Excavation: In January 1993, Converse Environmental West (Converse) supervised the removal of additional soil from the northern portion of the site. Ten soil samples (B-1 through B-10) were collected from the bottom of the excavation, and seven soil samples (SW-1 through SW-7) were collected from the western, northern, and eastern sidewalls of the excavation and analyzed for TPHg and BTEX; which were not detected in any of the soil samples. Approximately 828 cubic yards of impacted soil were removed, and approximately 6,300 gallons of water were pumped from the excavation and disposed offsite during the work. Clean, imported fill was used to backfill the excavation. This work was documented in Converse's *Soil Excavation and Soil Sampling Report* dated March 26, 1993.

April 1993 Well Destructions: In April 1993, onsite wells MW-8B and MW-8C were decommissioned by over-drilling. This work was documented in a letter by Pacific Environmental Group, Inc. (PEG) dated May 6, 1993.

May 1993 Well Installations: In May 1993, PEG installed two wells onsite (MW-8K and MW-8L) to 18 feet bgs. Well MW-8K was installed adjacent to former well MW-8E which historically contained the highest concentrations. No soil samples were collected for laboratory analysis from the well borings; however, organic vapor concentrations greater than 100 parts per million by volume (ppmv) were not observed. This work was documented in PEG's untitled letter report dated July 30, 1993.

1996-2000 Groundwater Oxygenation: In December 1996, socks containing ORC were placed in wells MW-8F, MW-8G, and MW-8I in an attempt to enhance biodegradation of petroleum hydrocarbons in groundwater. The socks were periodically replaced and were permanently removed from the wells in March 2000.

2001 Well Survey: In early 2001, KHM requested information from the Alameda County Public Works Agency (ACPWA) regarding the presence of wells within ½ mile of the site. No wells were identified within the search radius and no visual evidence of wells was observed within 1,000 feet of the site. The two nearest water supply wells identified were irrigation wells located approximately 3,500 feet west (crossgradient) and southwest (crossgradient) of the site.

November 2006 Subsurface Investigation: In November 2006, Cambria Environmental Technology, Inc. (Cambria [now CRA]) advanced borings S-1 through S-3 to approximately 4 feet bgs along the southern edge of the site. Boring S-3 was advanced into the excavation backfill. A soil sample was collected from each boring at 4 feet bgs and analyzed for TPHg, BTEX, TPHd, and TOG. TPHg was detected in the soil samples collected from borings S-1 and S-2 at concentrations of 390 mg/kg and 3,800 mg/kg, respectively. Benzene was only detected in the soil

sample collected from boring S-2 (0.41 mg/kg) immediately adjacent to the Grand Avenue sidewalk. Toluene, ethylbenzene, and xylenes (up to 170 mg/kg) were also detected in the soil samples collected from borings S-1 and S-2. TPHd was detected in the soil samples collected from borings S-1, S-2, and S-3 at 15 mg/kg, 580 mg/kg, and 11 mg/kg, respectively. TOG was not detected in any of the soil samples.

Soil vapor samples (SV-1 and SV-2) were also collected adjacent to the borings and analyzed for TPHg and BTEX. An additional sample (SV-3) was not analyzed due to inadequate sample volume. TPHg was detected in samples SV-1 and SV-2 at concentrations of 60,000 micrograms per cubic meter ($\mu g/m^3$) and 2 x 10^6 $\mu g/m^3$, respectively. Benzene was detected in samples SV-1 and SV-2 at concentrations of 3,400 $\mu g/m^3$ and 34,000 $\mu g/m^3$, respectively. Toluene (330 $\mu g/m^3$ and 160,000 $\mu g/m^3$, respectively), ethylbenzene (2,600 $\mu g/m^3$ and 64,000 $\mu g/m^3$, respectively), and xylenes (380 $\mu g/m^3$ and 280,000 $\mu g/m^3$, respectively) were also detected in samples SV-1 and SV-2. A field duplicate sample collected from SV-2 contained lower concentrations of TPHg (720,000 $\mu g/m^3$), benzene (14,000 $\mu g/m^3$), toluene (69,000 $\mu g/m^3$), ethylbenzene (27,000 $\mu g/m^3$), and xylenes (110,000 $\mu g/m^3$). This work was documented in Cambria's *Subsurface Investigation Report* dated February 28, 2007.

March 2008 Subsurface Investigation: In March 2008, CRA advanced five borings (SV-4 through SV-8) to depths of 3 to 6 feet bgs along the southern and eastern sides of the site. Groundwater was encountered in the borings at depths of 2 to 6 feet bgs. Borings SV-4 through SV-6 were advanced into the excavation backfill. One or two soil samples were collected at depths of 2 or 5 feet bgs from borings SV-5, SV-7, and SV-8 and analyzed for TPHg, BTEX, and methyl tertiary butyl ether (MTBE). TPHg was detected in the soil samples collected at 2 feet bgs (16 mg/kg) and 5 feet bgs (1,400 mg/kg) from boring SV-7; BTEX (benzene up to 0.11 mg/kg, ethylbenzene up to 15, and xylenes up to 19 mg/kg) were also detected in these two samples. MTBE was not detected in any of the soil samples. A grab groundwater sample was also collected from each of the five borings and analyzed for TPHg, BTEX, and MTBE. TPHg (6,200 µg/L) and benzene (200 µg/L) were detected in the groundwater sample collected from boring SV-7 in close proximity to the retaining wall on the east side of the site. Concentrations of MTBE were detected in the groundwater samples collected from borings SV-4 (1 µg/L), SV-7 (0.7 µg/L), and SV-8 (2 µg/L). The borings were intended to be completed as soil vapor wells; however, due to the shallow groundwater encountered, the wells were not installed. This work was documented in CRA's *Subsurface Investigation Report* dated August 14, 2008.

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? Yes		
Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? Yes		
Does corrective action protect public health for current land use? Alameda County Environmental Health staff does not make specific determinations concerning public health risk. However, based upon the information available in our files to date, it does not appear that the release would present a risk to human health based upon current land use and conditions.		
Site Management Requirements: Case closure for this fuel leak site is granted for the commercial land use only. If a change in land use to any residential or other conservative land use scenario occurs at this site, ACEH must be notified as required by Government Code Section 65850.2.2. ACEH will re-evaluate the case upon receipt of approved development/construction plans. Excavation or construction activities in areas of residual contamination require planning and implementation of appropriate health and safety procedures by the responsible party prior to and during excavation and construction activities. This site is to be entered into the City of Oakland Permit Tracking System due to the residual contamination on site.		
Should corrective action be reviewed if land use changes? Yes		
Was a deed restriction or deed notification filed? No		Date Recorded: ----
Monitoring Wells Decommissioned: No	Number Decommissioned: 0	Number Retained: 6
List Enforcement Actions Taken: None		
List Enforcement Actions Rescinded: None		

V. ADDITIONAL COMMENTS, DATA, ETC.

Considerations and/or Variances:

- Disposal destinations for all USTs, piping, soil, limited free phase, and groundwater are not fully reported.
- Residual petroleum hydrocarbon pollution in soil, groundwater, and soil vapor remains in place at this site. The extent of removal excavations was limited to south by sidewalk and utilities, and to east by the foundation of the retaining wall; residually contaminated soil with elevated concentrations remains in place along those perimeters (in soil up to 3,800 mg/kg TPHg, up to 580 mg/kg TPHd, and up to 22 mg/kg benzene remain). The extent of elevated concentrations in soil extends at least to the location of well MW-8J in Grand Avenue. Residual concentrations do not appear to significantly impact groundwater; however, elevated soil vapor is present but does not appear to have a receptor as currently developed. Upon redevelopment this data and current conclusions are to be revisited.
- Only MTBE has been analyzed for at the site; the maximum detected concentration was 4.0 µg/l and reduced to 1.0 µg/l. MTBE was not detected in soil. TBA, TAME, ETBE, DIPE, EtOH, EDB, and EDC all were not analyzed at the site.
- Grab groundwater samples collected at SV-4, SV-5, and SV-6 (non-detectable for TPHg, BTEX, and up to 1.0 µg/l MTBE) were used to confirm and validate non-detectable (for these analytes) groundwater results from generally submerged wells MW-8K and MW-8L.

Conclusion:
Alameda County Environmental Health staff believe that the levels of residual contamination do not pose a significant threat to water resources, public health and safety, and the environment under the a commercial land use scenario based upon the information available in our files to date. No further investigation or cleanup for the fuel leak case is necessary unless a change in land use to any residential or other conservative land use scenario; or construction or excavation activities occurs at the site. ACEH staff recommend case closure for this fuel leak site.

VI. LOCAL AGENCY REPRESENTATIVE DATA

Prepared by: Mark Detterman	Title: Hazardous Materials Specialist
Signature: Mark E	Date: 3/3/11
Approved by: Donna L. Drogos, P.E.	Title: Division Chief
Signature:	Date: 03/04/11

This closure approval is based upon the available information and with the provision that the information provided to this agency was accurate and representative of site conditions.

VII. REGIONAL BOARD NOTIFICATION

Regional Board Staff Name: Cherie McCaulou	Title: Engineering Geologist
Notification Date: 3/11/11	

VIII. MONITORING WELL DECOMMISSIONING

Date Requested by ACEH: 4/27/11	Date of Well Decommissioning Report: 9/6/11	
All Monitoring Wells Decommissioned: Yes	Number Decommissioned: 6	Number Retained: 0
Reason Wells Retained: None Retained		
Additional requirements for submittal of groundwater data from retained wells: None		
ACEH Concurrence - Signature: Mark E		Date: 9/21/11

Attachments:
1. Site Vicinity Map (1 pp)
2. Site Plans (4 pp)
3. Soil Analytical Data (7 pp)
4. Grab Groundwater Analytical Data (1 pp)
5. Soil Vapor Analytical Data (2 pp)
6. Groundwater Analytical Data (15 pp)
7. Boring Logs (34 pp)
8. Cross Sections (3 pp)

This document and the related CASE CLOSURE LETTER & REMEDIAL ACTION COMPLETION CERTIFICATE shall be retained by the lead agency as part of the official site file.

Detterman, Mark, Env. Health

From: Cherie MCcaulou [CMccaulou@waterboards.ca.gov]
Sent: Tuesday, March 29, 2011 10:36 AM
To: Detterman, Mark, Env. Health
Cc: Drogos, Donna, Env. Health
Subject: Re: RO0000391; Closure Summary for Chevron #21-1173

Mark - Thanks for the notification. We have no objection to ACEH's recommendation for case closure of RO0000391, for the UST releases at 500 Grand Avenue, Oakland.

Sincerely,

Cherie McCaulou
Engineering Geologist
San Francisco Bay Regional Water Quality Control Board
cmccaulou@waterboards.ca.gov
510-622-2342

>>> "Detterman, Mark, Env. Health" <Mark.Detterman@acgov.org> 3/11/2011 4:31 PM >>>
Hi Cherie,

Attached is a closure summary for RO0000391; Chevron #21-1173, located at 500 Grand in Oakland, in order to comply with the RWQCB's 30-day review period. If no comments from the RWQCB are received within the 30-day review period, ACEH's will proceed with case closure.

This is an older site with an extensive history. Residual contamination will be left in place and the site will be placed in the Oakland permit tracking system. Twelve wells are installed; well destruction is pending RWQCB concurrence.

Should you have questions, please let me know.
Best,

Mark Detterman
Senior Hazardous Materials Specialist, PG, CEG
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502
Direct: 510.567.6876
Fax: 510.337.9335
Email: mark.detterman@acgov.org

PDF copies of case files can be downloaded at:

http://www.acgov.org/aceh/lop/ust.htm

APPENDIX B

DPT SOIL BORING LOGS

BOREHOLE LOG

BORING / WELL ID: **SB-1**

TOTAL DEPTH: **14'**

PROJECT NAME AND SITE ADDRESS: **500 Grand Avenue, Oakland, California**

BORING LOCATION / DESCRIPTION: **Southern property border, approximately 10 feet west of former SB-5**

PROJECT INFORMATION

PROJECT NO.:	**01-ECR-001:3B**
PERMIT NO.:	**W2016-0266**
LOGGED BY:	**R. Robitaille**
REVIEWED BY:	
SURFACE ELEVATION:	
CASING TOP ELEVATION:	
START DATE (TIME):	**04/16/16 (1320)**
FINISH DATE (TIME):	**04/16/16 (1405)**

DRILLING INFORMATION

SUBCONTRACTOR:	**Cascade Drilling**
EQUIPMENT:	**GeoProbe 8040DT**
SAMPLING METHOD:	**Direct Push 1.85" Core**
MONITORING DEVICE:	**MiniRae 2000 PID**
BORING DIAMETER (IN):	**3.5 inches**
ANNULUS MATERIAL:	**NA**
BORING ANGLE: **Vertical**	CASING DIAMETER: **NA**
SCREEN INTERVAL: **NA**	

▽ First Water Encountered ▼ Stabilized Water Level ■ Sample Packaged for Analysis

TIME	PID READING	WATER LEVEL	SAMPLE INTERVAL	RECOVERY (%)	DEPTH	STRATIGRAPHY	LITHOLOGIC DESCRIPTION (classification, color, moisture, density, grain size / plasticity, other) ALL PERCENTAGES ARE APPROXIMATE UNLESS OTHERWISE STATED.	WELL CONSTRUCTION DETAILS
					0		Boring hand cleared to three feet bgs. Asphalt to 0.42 feet bgs.	
	395						Fill - base gravel.	
1330	723						ML: Sandy silt, dark yellowish brown (10YR 4/6), dry, moderately hard, very poorly sorted, very fine to very coarse grained sand, trace gravel and clay, (0,40,60,0).	
1350	642				5		CL: Clayey silt, dark greenish gray (10Y 4/1), dry, moderately hard, strong petroleum odor.	Borehole was backfilled with cement/ bentonite grout.
	425						6 feet bgs - Grades mottled with dark yellowish brown, moderate petroleum odor.	
1400	43.1						8.5 feet bgs - Grades no odor, dark yellowish brown (10YR 4/4).	
1405					10		SW: Sand, dark yellowish brown (10YR 4/4), wet, loose, moderately well sorted, fine to medium grained sand with silt.	
	51.3						CL: Clay with silt, very pale brown (10YR 7/3), dry, hard, (0,0,30,70).	

BOREHOLE LOG

BORING / WELL ID: **SB-2**

TOTAL DEPTH: **12'**

PROJECT NAME AND SITE ADDRESS: **500 Grand Avenue, Oakland, California**

BORING LOCATION / DESCRIPTION: **Centerline of southern property border**

PROJECT INFORMATION

PROJECT NO.:	**01-ECR-001:3B**
PERMIT NO.:	**W2016-0266**
LOGGED BY:	**R. Robitaille**
REVIEWED BY:	
SURFACE ELEVATION:	
CASING TOP ELEVATION:	
START DATE (TIME):	**04/16/16 (1415)**
FINISH DATE (TIME):	**04/16/16 (1445)**

DRILLING INFORMATION

SUBCONTRACTOR:	**Cascade Drilling**
EQUIPMENT:	**GeoProbe 8040DT**
SAMPLING METHOD:	**Direct Push 1.85" Core**
MONITORING DEVICE:	**MiniRae 2000 PID**
BORING DIAMETER (IN):	**3.5 inches**
ANNULUS MATERIAL:	**NA**
BORING ANGLE: **Vertical**	CASING DIAMETER: **NA**
SCREEN INTERVAL: **NA**	

▽ First Water Encountered ▼ Stabilized Water Level ■ Sample Packaged for Analysis

TIME	PID READING	WATER LEVEL	SAMPLE INTERVAL	RECOVERY (%)	DEPTH	STRATIGRAPHY	LITHOLOGIC DESCRIPTION (classification, color, moisture, density, grain size / plasticity, other) ALL PERCENTAGES ARE APPROXIMATE UNLESS OTHERWISE STATED.	WELL CONSTRUCTION DETAILS
					0		Boring hand cleared to 0.75 feet bgs. Asphalt to 0.6 feet bgs.	
	52							
1420	180						CL: Clayey silt, yellowish brown (10YR 4/4), dry, moderately hard.	
	1000						CL: Clayey silt, dark gray (10Y 4/1), dry, moderately hard, strong petroleum odor.	
1425	380				5		Grades mottled with yellowish brown (10YR 4/4).	
	104							
	1.0							
1430							SM: Silty sand, dark gray (10Y 4/1), wet, loose, strong petroleum odor.	
1440								
					10		SC: Clayey sand, dark grayish brown (10YR 4/2), wet, moderately dense, fine to medium grained sand, (0,70,10,20).	
	0.0						CL: Clay, very pale brown (10YR 8/2), moist, moderately hard, abundant caliche.	
1445								

BOREHOLE LOG

BORING / WELL ID: **SB-3**

TOTAL DEPTH: **13'**

PROJECT NAME AND SITE ADDRESS: **500 Grand Avenue, Oakland, California**

BORING LOCATION / DESCRIPTION: **Southeast corner of former UST pit**

PROJECT INFORMATION

PROJECT NO.:	**01-ECR-001:3B**
PERMIT NO.:	**W2016-0266**
LOGGED BY:	**R. Robitaille**
REVIEWED BY:	
SURFACE ELEVATION:	
CASING TOP ELEVATION:	
START DATE (TIME):	**04/16/16 (1540)**
FINISH DATE (TIME):	**04/16/16 (1610)**

DRILLING INFORMATION

SUBCONTRACTOR:	**Cascade Drilling**
EQUIPMENT:	**GeoProbe 8040DT**
SAMPLING METHOD:	**Direct Push 1.85" Core**
MONITORING DEVICE:	**MiniRae 2000 PID**
BORING DIAMETER (IN):	**3.5 inches**
ANNULUS MATERIAL:	**NA**
BORING ANGLE: **Vertical**	CASING DIAMETER: **NA**
SCREEN INTERVAL: **NA**	

▽ First Water Encountered ▼ Stabilized Water Level ■ Sample Packaged for Analysis

TIME	PID READING	WATER LEVEL	SAMPLE INTERVAL	RECOVERY (%)	DEPTH	STRATIGRAPHY	LITHOLOGIC DESCRIPTION (classification, color, moisture, density, grain size / plasticity, other) ALL PERCENTAGES ARE APPROXIMATE UNLESS OTHERWISE STATED.	WELL CONSTRUCTION DETAILS
	60				0		Asphalt to 0.25 feet bgs.	
							Fill - base gravel.	
	340						CL: Silty clay, yellowish brown (10YR 5/6), gray mottled, dry, hard, (0,10,40,50).	
	400							
1545					5			Borehole was backfilled with cement/ bentonite grout.
	175						CL: Clay, very pale brown (10YR 8/2), moist, hard, abundant caliche.	
	125						6.75 feet bgs - Grades mottled yellowish brown.	
1550	175						8.1 feet bgs - Dry, grades with gravel to 0.75" diameter.	
					10		9 feet bgs - No gravel.	
	160							
	53						11 feet bgs - Grades predominately light yellowish brown (10YR 5/4), with pale brown and yellowish brown mottling.	
1610	60							

BOREHOLE LOG

BORING / WELL ID: **SB-4**

TOTAL DEPTH: **15'**

PROJECT NAME AND SITE ADDRESS: **500 Grand Avenue, Oakland, California**

BORING LOCATION / DESCRIPTION: **Former UST pit**

PROJECT INFORMATION

PROJECT NO.:	**01-ECR-001:3B**
PERMIT NO.:	**W2016-0266**
LOGGED BY:	**R. Robitaille**
REVIEWED BY:	
SURFACE ELEVATION:	
CASING TOP ELEVATION:	
START DATE (TIME):	**04/16/16 (1505)**
FINISH DATE (TIME):	**04/16/16 (1530)**

DRILLING INFORMATION

SUBCONTRACTOR:	**Cascade Drilling**
EQUIPMENT:	**GeoProbe 8040DT**
SAMPLING METHOD:	**Direct Push 1.85" Core**
MONITORING DEVICE:	**MiniRae 2000 PID**
BORING DIAMETER (IN):	**3.5 inches**
ANNULUS MATERIAL:	**NA**
BORING ANGLE: **Vertical**	CASING DIAMETER: **NA**
SCREEN INTERVAL: **NA**	

▽ First Water Encountered ▼ Stabilized Water Level ■ Sample Packaged for Analysis

TIME	PID READING	WATER LEVEL	SAMPLE INTERVAL	RECOVERY (%)	DEPTH	STRATIGRAPHY	LITHOLOGIC DESCRIPTION (classification, color, moisture, density, grain size / plasticity, other) ALL PERCENTAGES ARE APPROXIMATE UNLESS OTHERWISE STATED.	WELL CONSTRUCTION DETAILS
					0		Asphalt to 0.25 feet bgs.	
1510	1.0				5		Fill - GM: Silty gravel, very dark grayish brown (10YR 3/2), dry, dense, poorly sorted, gravel to 1" diameter, angular, low plasticity, (50,10,30,10).	Borehole was backfilled with cement/ bentonite grout.
					10			
1525	2.0							
1530	2.0				15		CL: Silty clay, dark yellowish brown (10YR 4/4), gray mottled, moist, moderately hard, low plasticity, trace caliche nodules. Grades with sand, dark grayish brown (2.5Y 4/2).	

BOREHOLE LOG

BORING / WELL ID: **SB-5**

TOTAL DEPTH: **14'**

PROJECT NAME AND SITE ADDRESS: **500 Grand Avenue, Oakland, California**

BORING LOCATION / DESCRIPTION: **Former UST pit**

PROJECT INFORMATION

PROJECT NO.:	**01-ECR-001:3B**
PERMIT NO.:	**W2016-0266**
LOGGED BY:	**R. Robitaille**
REVIEWED BY:	
SURFACE ELEVATION:	
CASING TOP ELEVATION:	
START DATE (TIME):	**04/16/16 (1120)**
FINISH DATE (TIME):	**04/16/16 (1310)**

DRILLING INFORMATION

SUBCONTRACTOR:	**Cascade Drilling**
EQUIPMENT:	**GeoProbe 8040DT**
SAMPLING METHOD:	**Direct Push 1.85" Core**
MONITORING DEVICE:	**MiniRae 2000 PID**
BORING DIAMETER (IN):	**3.5 inches**
ANNULUS MATERIAL:	**NA**
BORING ANGLE: **Vertical**	CASING DIAMETER: **NA**
SCREEN INTERVAL: **NA**	

▽ First Water Encountered ▼ Stabilized Water Level ■ Sample Packaged for Analysis

TIME	PID READING	WATER LEVEL	SAMPLE INTERVAL	RECOVERY (%)	DEPTH	STRATIGRAPHY	LITHOLOGIC DESCRIPTION (classification, color, moisture, density, grain size / plasticity, other) ALL PERCENTAGES ARE APPROXIMATE UNLESS OTHERWISE STATED.	WELL CONSTRUCTION DETAILS
1125					0		Asphalt to 0.25 feet bgs.	Borehole was backfilled with cement/ bentonite grout.
							Fill - GM: Silty gravel, very dark grayish brown (10YR 3/2), dry, dense, poorly sorted, gravel to 1" diameter, angular, low plasticity, (50,10,30,10).	
					5			
1130					10			
1310							CL: Clayey silt, dark yellowish brown (10YR 5/4), dry, moderately hard.	

BOREHOLE LOG

BORING / WELL ID: **SB-6**

TOTAL DEPTH: **10'**

PROJECT NAME AND SITE ADDRESS: **500 Grand Avenue, Oakland, California**

BORING LOCATION / DESCRIPTION: **Proposed elevator shaft**

PROJECT INFORMATION

PROJECT NO.: **01-ECR-001:3B**

PERMIT NO.: **W2016-0266**

LOGGED BY: **R. Robitaille**

REVIEWED BY:

SURFACE ELEVATION:

CASING TOP ELEVATION:

START DATE (TIME): **04/16/16 (0800)**

FINISH DATE (TIME): **04/16/16 (0845)**

DRILLING INFORMATION

SUBCONTRACTOR: **Cascade Drilling**

EQUIPMENT: **GeoProbe 8040DT**

SAMPLING METHOD: **Direct Push 1.85" Core**

MONITORING DEVICE: **MiniRae 2000 PID**

BORING DIAMETER (IN): **3.5 inches**

ANNULUS MATERIAL: **NA**

BORING ANGLE: **Vertical** CASING DIAMETER: **NA**

SCREEN INTERVAL: **NA**

▽ First Water Encountered ▼ Stabilized Water Level ■ Sample Packaged for Analysis

TIME	PID READING	WATER LEVEL	SAMPLE INTERVAL	RECOVERY (%)	DEPTH	STRATIGRAPHY	LITHOLOGIC DESCRIPTION (classification, color, moisture, density, grain size / plasticity, other) ALL PERCENTAGES ARE APPROXIMATE UNLESS OTHERWISE STATED.	WELL CONSTRUCTION DETAILS
					0		Asphalt to 0.25 feet bgs.	
	0.5						Fill - GM: Silty gravel, very dark grayish brown (10YR 3/2), dry, dense, poorly sorted, gravel to 1" diameter, angular, low plasticity, (50,10,30,10).	
0830	0.1							
0830	0.1				5			
							CL: Clayey silt, light olive brown (2.5Y 5/4), dry, moderately hard, trace fine grained sand, low plasticity, (0,0,70,30).	
							7.5 feet bgs - Grades increasing clay, moist, dark yellowish brown (10YR 4/4).	
	0.1						8.5 feet bgs - Grades decreasing clay.	
0845					10			Borehole was backfilled with cement/ bentonite grout.

BOREHOLE LOG

BORING / WELL ID: **SB-7**

TOTAL DEPTH: **10'**

PROJECT NAME AND SITE ADDRESS: **500 Grand Avenue, Oakland, California**

BORING LOCATION / DESCRIPTION: **North to south centerline, ~25 feet from southern property line**

PROJECT INFORMATION

PROJECT NO.:	**01-ECR-001:3B**
PERMIT NO.:	**W2016-0266**
LOGGED BY:	**R. Robitaille**
REVIEWED BY:	
SURFACE ELEVATION:	
CASING TOP ELEVATION:	
START DATE (TIME):	**04/16/16 (1050)**
FINISH DATE (TIME):	**04/16/16 (1115)**

DRILLING INFORMATION

SUBCONTRACTOR:	**Cascade Drilling**
EQUIPMENT:	**GeoProbe 8040DT**
SAMPLING METHOD:	**Direct Push 1.85" Core**
MONITORING DEVICE:	**MiniRae 2000 PID**
BORING DIAMETER (IN):	**3.5 inches**
ANNULUS MATERIAL:	**NA**
BORING ANGLE: **Vertical**	CASING DIAMETER: **NA**
SCREEN INTERVAL: **NA**	

▽ First Water Encountered ▼ Stabilized Water Level ■ Sample Packaged for Analysis

TIME	PID READING	WATER LEVEL	SAMPLE INTERVAL	RECOVERY (%)	DEPTH	STRATIGRAPHY	LITHOLOGIC DESCRIPTION (classification, color, moisture, density, grain size / plasticity, other) ALL PERCENTAGES ARE APPROXIMATE UNLESS OTHERWISE STATED.	WELL CONSTRUCTION DETAILS
					0		Asphalt to 0.25 feet bgs.	Borehole was backfilled with cement/ bentonite grout.
	6.6						Fill - GM: Sandy gravel with silt, dark grayish brow (10YR 4/2), moist, dense, very poorly sorted.	
1055	24.1						Fill - GM: Silty gravel, very dark grayish brown (10YR 3/2), dry, dense, poorly sorted, gravel to 1" diameter, angular, low plasticity, (50,10,30,10).	
	30.4				5		CL: Clayey silt, light live brown (2.5Y 5/3), dry, moderately hard, trace fine grained sand, (0,0,70,30). 6.75 feet bgs - Grades dark yellowish brown (10YR 4/4). 8.5 feet bgs - Grades with trace coarse grained sand and fine grained gravel.	
1100								
	32.5							
1115					10		SM: Silty sand with gravel, dark yellowish brown (10YR 4/4), wet, dense, very poorly sorted, fine grained gravel, very coarse to fine grained sand, some silt and clay, (20,50,20,10).	

BOREHOLE LOG

BORING / WELL ID: **SB-8**

TOTAL DEPTH: **10'**

PROJECT NAME AND SITE ADDRESS: **500 Grand Avenue, Oakland, California**

BORING LOCATION / DESCRIPTION: **Former waste oil UST**

PROJECT INFORMATION

PROJECT NO.:	**01-ECR-001:3B**
PERMIT NO.:	**W2016-0266**
LOGGED BY:	**R. Robitaille**
REVIEWED BY:	
SURFACE ELEVATION:	
CASING TOP ELEVATION:	
START DATE (TIME):	**04/16/16 (1135)**
FINISH DATE (TIME):	**04/16/16 (1150)**

DRILLING INFORMATION

SUBCONTRACTOR:	**Cascade Drilling**
EQUIPMENT:	**GeoProbe 8040DT**
SAMPLING METHOD:	**Direct Push 1.85" Core**
MONITORING DEVICE:	**MiniRae 2000 PID**
BORING DIAMETER (IN):	**3.5 inches**
ANNULUS MATERIAL:	**NA**
BORING ANGLE: **Vertical**	CASING DIAMETER: **NA**
SCREEN INTERVAL: **NA**	

▽ First Water Encountered ▼ Stabilized Water Level ■ Sample Packaged for Analysis

TIME	PID READING	WATER LEVEL	SAMPLE INTERVAL	RECOVERY (%)	DEPTH	STRATIGRAPHY	LITHOLOGIC DESCRIPTION (classification, color, moisture, density, grain size / plasticity, other) ALL PERCENTAGES ARE APPROXIMATE UNLESS OTHERWISE STATED.	WELL CONSTRUCTION DETAILS
1140	37.1				0		Asphalt to 0.25 feet bgs.	
							Fill - GM: Silty gravel, very dark grayish brown (10YR 3/2), dry, dense, poorly sorted, gravel to 1" diameter, angular, low plasticity, (50,10,30,10).	
	14.7				5		Fill - GP: Gravel with sand, wet, loose, fine grained gravel to coarse grained sand.	
1150	17.9						CL: Clayey silt, light olive brown (2.5Y 5/4), wet, moderately hard, low plasticity, (0,0,70,30). 7.8 feet bgs - Grades yellowish brown (10YR 5/4). 8.5 feet bgs - Grades with fine grained sand.	
					10		SM: Silty sand, dark yellowish brown (10YR 4/4), wet, moderately dense, predominately fine to very fine grained sand, trace clay, (0,75,20,5).	

BOREHOLE LOG

BORING / WELL ID: **SB-9**

TOTAL DEPTH: **10'**

PROJECT NAME AND SITE ADDRESS: **500 Grand Avenue, Oakland, California**

BORING LOCATION / DESCRIPTION: **Upgradient - center of north wall**

PROJECT INFORMATION

PROJECT NO.:	**01-ECR-001:3B**
PERMIT NO.:	**W2016-0266**
LOGGED BY:	**R. Robitaille**
REVIEWED BY:	
SURFACE ELEVATION:	
CASING TOP ELEVATION:	
START DATE (TIME):	**04/16/16 (0745)**
FINISH DATE (TIME):	**04/16/16 (0830)**

DRILLING INFORMATION

SUBCONTRACTOR:	**Cascade Drilling**
EQUIPMENT:	**GeoProbe 8040DT**
SAMPLING METHOD:	**Direct Push 1.85" Core**
MONITORING DEVICE:	**MiniRae 2000 PID**
BORING DIAMETER (IN):	**3.5 inches**
ANNULUS MATERIAL:	**NA**
BORING ANGLE: **Vertical**	CASING DIAMETER: **NA**
SCREEN INTERVAL: **NA**	

▽ First Water Encountered ▼ Stabilized Water Level ■ Sample Packaged for Analysis

TIME	PID READING	WATER LEVEL	SAMPLE INTERVAL	RECOVERY (%)	DEPTH	STRATIGRAPHY	LITHOLOGIC DESCRIPTION (classification, color, moisture, density, grain size / plasticity, other) ALL PERCENTAGES ARE APPROXIMATE UNLESS OTHERWISE STATED.	WELL CONSTRUCTION DETAILS
0805	0.0				0		Boring hand cleared to 2 feet bgs. Asphalt to 0.25 feet bgs.	Borehole was backfilled with cement/ bentonite grout.
	0.1						Fill - GW-SW: Sandy gravel, dark greenish gray (10Y 4/1), dry to wet, loose, very poorly sorted, gravel to 1" diameter, (50,40,10,0).	
					5		ML: Sandy silt, dark yellowish brown (10YR 4/6), moist, moderately hard, low plasticity, trace clay, very fine grained sand, (0,15,80,5). 4.8 feet bgs - Grades with trace gray mottling, increasing fine grained sand, increasing clay, (0,20,70,10).	
	0.1							
	0.1						SC: Sand with clay, yellowish brown (10YR 5/4), wet, dense, poorly sorted, coarse to very fine grained sand, trace fine grained gravel, grades less clay at base, (5,70,10,15).	
0825	0.1				10		CL: Clayey silt, yellowish brown (10YR 5/4) to very pale brown (10YR 7/4), abundant caliche, moist, hard, low plasticity, (0,5,60,35).	

BOREHOLE LOG

BORING / WELL ID: **SB-10**

TOTAL DEPTH: **10'**

PROJECT NAME AND SITE ADDRESS: **500 Grand Avenue, Oakland, California**

BORING LOCATION / DESCRIPTION: **Near former well MW-8B**

PROJECT INFORMATION

PROJECT NO.: **01-ECR-001:3B**

PERMIT NO.: **W2016-0266**

LOGGED BY: **R. Robitaille**

REVIEWED BY:

SURFACE ELEVATION:

CASING TOP ELEVATION:

START DATE (TIME): **04/16/16 (0920)**

FINISH DATE (TIME): **04/16/16 (0950)**

DRILLING INFORMATION

SUBCONTRACTOR: **Cascade Drilling**

EQUIPMENT: **GeoProbe 8040DT**

SAMPLING METHOD: **Direct Push 1.85" Core**

MONITORING DEVICE: **MiniRae 2000 PID**

BORING DIAMETER (IN): **3.5 inches**

ANNULUS MATERIAL: **NA**

BORING ANGLE: **Vertical** CASING DIAMETER: **NA**

SCREEN INTERVAL: **NA**

▽ First Water Encountered ▼ Stabilized Water Level ■ Sample Packaged for Analysis

TIME	PID READING	WATER LEVEL	SAMPLE INTERVAL	RECOVERY (%)	DEPTH	STRATIGRAPHY	LITHOLOGIC DESCRIPTION (classification, color, moisture, density, grain size / plasticity, other) ALL PERCENTAGES ARE APPROXIMATE UNLESS OTHERWISE STATED.	WELL CONSTRUCTION DETAILS
					0		Boring hand cleared to 2 feet bgs. Asphalt to 0.25 feet bgs.	
0925							Fill - GM: Silty gravel, very dark grayish brown (10YR 3/2), dry, dense, poorly sorted, gravel to 1" diameter, angular, low plasticity, (50,10,30,10). Grades wet at 5 feet bgs.	
					5			
0935							CL: Clayey silt, light olive brown (2.5Y 5/4), drymoderately dense, low plasticity, trace fine grained sand, (0,0,70,30). Grades dark yellowish brown (10YR 4/4). Found water April 21, 2016, 0720 hours.	
0950					10			

APPENDIX C

GEOTECHNICAL LABORATORY REPORTS

8100 Secura Way • Santa Fe Springs, CA 90670
Telephone (562) 347-2500 • Fax (562) 907-3610

May 5, 2016

Glen Smith
The Source Group, Inc.
3478 Buskirk Ave, Ste 100
Pleasant Hill, CA 94523

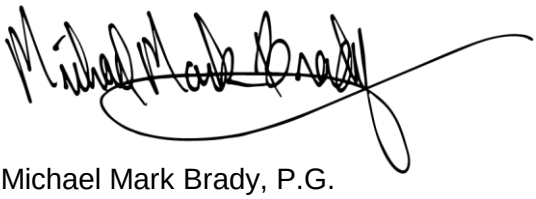
Re: PTS File No: 46250
Physical Properties Data
Ellwood Commercial Real Estate; O1-ECR-001

Dear Mr. Smith:

Please find enclosed report for Physical Properties analyses conducted upon samples received from your Ellwood Commercial Real Estate; O1-ECR-001 project. All analyses were performed by applicable ASTM, EPA, or API methodologies. The samples are currently in storage and will be retained for thirty days past completion of testing at no charge. Please note that the samples will be disposed of at that time. You may contact me regarding storage, disposal, or return of the samples.

PTS Laboratories appreciates the opportunity to be of service. If you have any questions or require additional information, please give me a call at (562) 347-2502.

Sincerely,
PTS Laboratories, Inc.



Michael Mark Brady, P.G.
Laboratory Director

Encl.

Project Name: **Ellwood Commercial Real Estate** **PTS File No: 46250**
Project Number: **O1-ECR-001** **Client: The Source Group, Inc.**

TEST PROGRAM - 20160420

CORE ID	Depth ft.	Core Recovery ft.	CAL-EPA DTSC Vapor Intrusion						Comments
		Plugs:	Various						
Date Received: 20160420									
SB-6-4'	**4.0**	**0.65**	**X**						
SB-10-10	**10.0**	**0.55**	**X**						
TOTALS:	**2 Cores**	**1.20**	**2**						**2**

Laboratory Test Program Notes
Contaminant identification:
Standard TAT for basic analysis is 15 business days.
CAL-EPA DTSC Vapor Intrusion: Bulk & grain density, total porosity, moisture content, volumetric air & moisture, TOC/foc, and grain size distribution.

PTS Laboratories

PTS File No: 46250
Client: The Source Group, Inc.
Report Date: 05/05/16

PHYSICAL PROPERTIES DATA - CAL-EPA DTSC Vapor Intrusion Package

Project Name: Ellwood Commercial Real Estate
Project No: O1-ECR-001

			METHODS:	API RP40/ASTM D2216		API RP 40		API RP 40		
SAMPLE ID.	DEPTH, ft.	SAMPLE ORIENTATION (1)	ANALYSIS DATE	MOISTURE CONTENT, % weight	MOISTURE CONTENT, cm^3/cm^3	DENSITY, DRY BULK, g/cm^3	DENSITY, GRAIN, g/cm^3	POROSITY, (2), TOTAL, cm^3/cm^3	POROSITY, (2), AIR-FILLED, cm^3/cm^3	POROSITY, (2), WATER-FILLED, cm^3/cm^3
SB-6-4'	4.35	V	20160429	8.1	0.137	1.69	2.72	0.378	0.241	0.137
SB-10-10	10.5	V	20160429	19.9	0.326	1.63	2.65	0.383	0.057	0.326

(1) Sample Orientation: H = horizontal; V = vertical; R = remold

(2) Total Porosity = all interconnected pore channels; Air Filled = pore channels not occupied by pore fluids.

Vb = Bulk Volume, cc; Pv = Pore Volume, cc; ND = Not Detected

PARTICLE SIZE SUMMARY

(METHODOLOGY: ASTM D422/D4464M)

PROJECT NAME: Ellwood Commercial Real Estate
PROJECT NO: O1-ECR-001

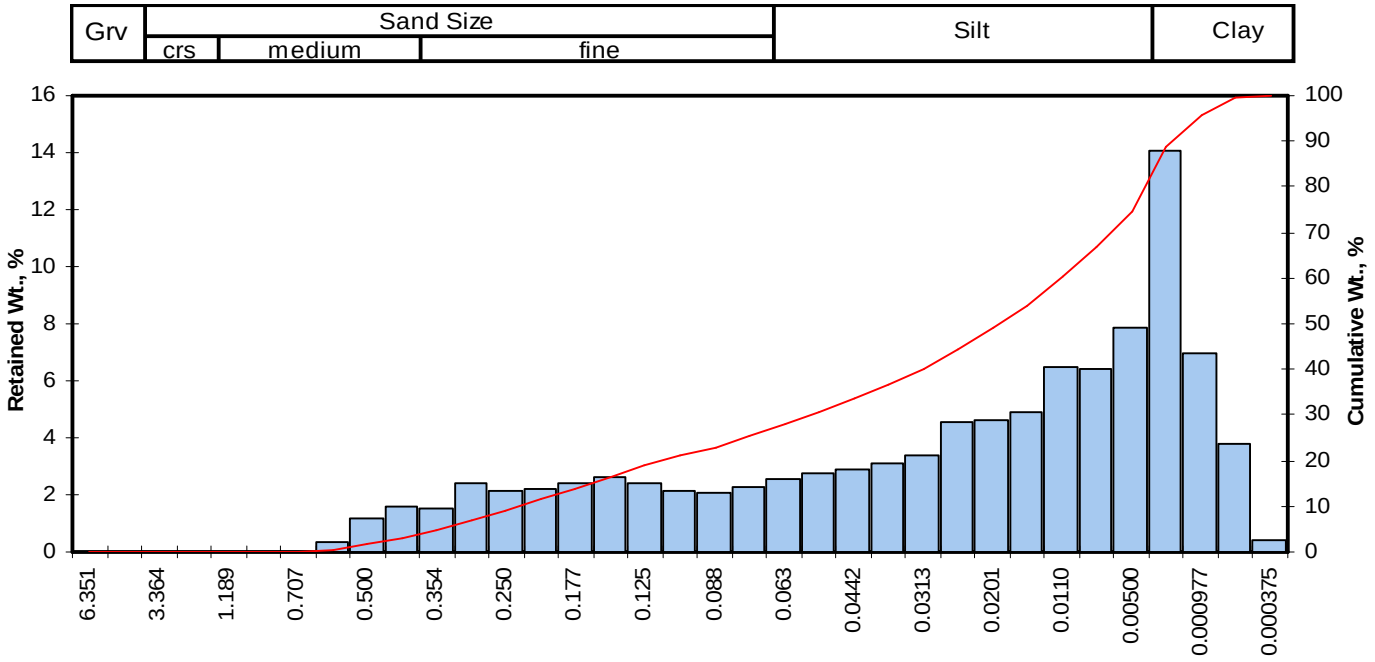
Sample ID	Depth, ft.	Mean Grain Size Description (1)	Median Grain Size mm	Particle Size Distribution, wt. percent						Silt & Clay
				Gravel	Sand Size			Silt	Clay	
					Coarse	Medium	Fine			
SB-10-10	10.5	Silt	0.019	0.00	0.00	3.11	22.20	49.43	25.26	74.69

(1) Based on Mean from Trask

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client:	The Source Group, Inc.	**PTS File No:**	46250
Project:	Ellwood Commercial Real Estate	**Sample ID:**	SB-10-10
Project No:	O1-ECR-001	**Depth, ft:**	10.5



Opening		Phi of	U.S.	Sample Weight,	Increment Weight,	Cumulative Weight,
Inches	Millimeters	Screen	No.	grams	percent	percent
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	0.00	0.00	0.00
0.0331	0.841	0.25	20	0.00	0.00	0.00
0.0278	0.707	0.50	25	0.02	0.02	0.02
0.0234	0.595	0.75	30	0.34	0.34	0.36
0.0197	0.500	1.00	35	1.18	1.18	1.54
0.0166	0.420	1.25	40	1.57	1.57	3.11
0.0139	0.354	1.50	45	1.53	1.53	4.64
0.0117	0.297	1.75	50	2.42	2.42	7.06
0.0098	0.250	2.00	60	2.17	2.17	9.23
0.0083	0.210	2.25	70	2.20	2.20	11.43
0.0070	0.177	2.50	80	2.39	2.39	13.82
0.0059	0.149	2.75	100	2.59	2.59	16.41
0.0049	0.125	3.00	120	2.42	2.42	18.83
0.0041	0.105	3.25	140	2.12	2.12	20.95
0.0035	0.088	3.50	170	2.07	2.07	23.02
0.0029	0.074	3.75	200	2.29	2.29	25.31
0.0025	0.063	4.00	230	2.57	2.57	27.88
0.0021	0.053	4.25	270	2.74	2.74	30.62
0.00174	0.0442	4.50	325	2.90	2.90	33.53
0.00146	0.0372	4.75	400	3.10	3.10	36.63
0.00123	0.0313	5.00	450	3.35	3.35	39.98
0.000986	0.0250	5.32	500	4.54	4.54	44.52
0.000790	0.0201	5.64	635	4.60	4.60	49.12
0.000615	0.0156	6.00		4.87	4.87	53.99
0.000435	0.0110	6.50		6.48	6.48	60.47
0.000308	0.00781	7.00		6.38	6.38	66.85
0.000197	0.00500	7.65		7.89	7.89	74.74
0.000077	0.00195	9.00		14.10	14.10	88.85
0.000038	0.000977	10.00		6.93	6.93	95.78
0.000019	0.000488	11.00		3.82	3.82	99.60
0.000015	0.000375	11.38		0.40	0.40	100.00
TOTALS				**100.00**	**100.00**	**100.00**

Cumulative Weight Percent greater than

Weight percent	Phi Value	Particle Size Inches	Particle Size Millimeters
5	1.54	0.0136	0.345
10	2.09	0.0093	0.235
16	2.71	0.0060	0.153
25	3.72	0.0030	0.076
40	5.00	0.0012	0.031
50	5.71	0.0008	0.019
60	6.46	0.0004	0.011
75	7.67	0.0002	0.005
84	8.53	0.0001	0.003
90	9.17	0.0001	0.002
95	9.89	0.0000	0.001

Measure	Trask	Inman	Folk-Ward
Median, phi	5.71	5.71	5.71
Median, in.	0.0008	0.0008	0.0008
Median, mm	0.019	0.019	0.019
Mean, phi	4.63	5.62	5.65
Mean, in.	0.0016	0.0008	0.0008
Mean, mm	0.041	0.020	0.020
Sorting	3.936	2.912	2.721
Skewness	1.009	-0.028	-0.013
Kurtosis	0.152	0.434	0.866

Grain Size Description (ASTM-USCS Scale)	Silt (based on Mean from Trask)

Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	3.11
Fine Sand	200	22.20
Silt	>0.005 mm	49.43
Clay	<0.005 mm	25.26
	Total	**100**

Phone: (562) 907-3607
Fax: (562) 907-3610

The Source Group, Inc.
PTS File No: 46250

PARTICLE SIZE SUMMARY

(METHODOLOGY: ASTM D422M)

PROJECT NAME: Ellwood Commercial Real Estate
PROJECT NO: O1-ECR-001

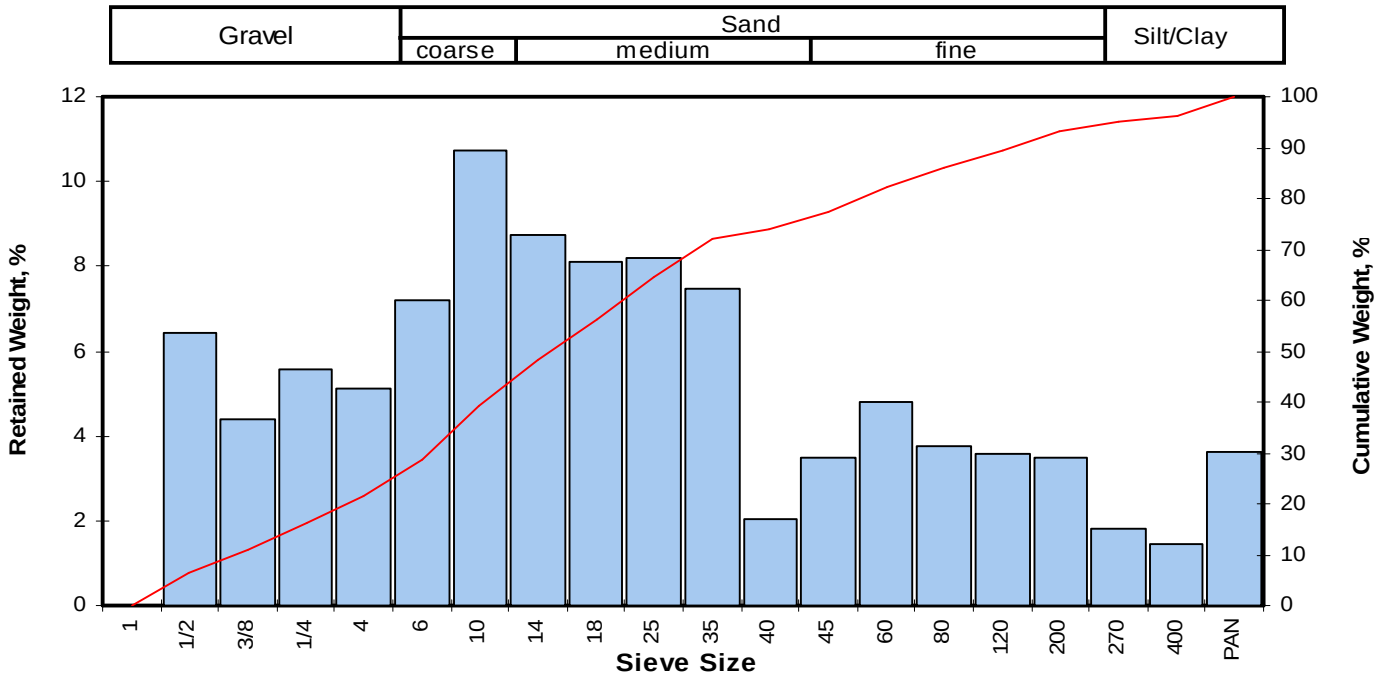
Sample ID	Depth, ft.	Mean Grain Size Description USCS/ASTM (1)	Median Grain Size, mm	Particle Size Distribution, wt. percent				
				Gravel	Sand Size			Silt/Clay
					Coarse	Medium	Fine	
SB-6-4'	4.35	Coarse sand	1.308	21.52	17.90	34.54	19.12	6.92

(1) Based on Mean fromTrask

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D422M

Client:	The Source Group, Inc.	**PTS File No:**	46250
Project:	Ellwood Commercial Real Estate	**Sample ID:**	SB-6-4'
Project No:	O1-ECR-001	**Depth, ft:**	4.35



Opening		Phi of	U.S. Sieve	Sample Weight	Incremental Weight,	Cumulative Weight,
Inches	Millimeters	Screen	No.	grams	percent	percent
0.9844	25.002	-4.64	1	0.00	0.00	0.00
0.4922	12.501	-3.64	1/2	8.29	6.41	6.41
0.3740	9.500	-3.25	3/8	5.69	4.40	10.82
0.2500	6.351	-2.67	1/4	7.20	5.57	16.39
0.1873	4.757	-2.25	4	6.63	5.13	21.52
0.1324	3.364	-1.75	6	9.28	7.18	28.70
0.0787	2.000	-1.00	10	13.85	10.72	39.42
0.0557	1.414	-0.50	14	11.30	8.74	48.16
0.0394	1.000	0.00	18	10.50	8.13	56.29
0.0278	0.707	0.50	25	10.57	8.18	64.47
0.0197	0.500	1.00	35	9.65	7.47	71.93
0.0166	0.420	1.25	40	2.62	2.03	73.96
0.0139	0.354	1.50	45	4.49	3.47	77.44
0.0098	0.250	2.00	60	6.21	4.81	82.24
0.0070	0.177	2.50	80	4.85	3.75	85.99
0.0049	0.125	3.00	120	4.65	3.60	89.59
0.0029	0.074	3.75	200	4.51	3.49	93.08
0.0021	0.053	4.25	270	2.37	1.83	94.92
0.0015	0.037	4.75	400	1.89	1.46	96.38
			PAN	4.68	3.62	100.00
TOTALS				129.23	100.00	100.00

Cumulative Weight Percent greater than			
Weight	Phi	Particle Size	
percent	Value	Inches	Millimeters
5	-3.86	0.5735	14.566
10	-3.32	0.3936	9.997
16	-2.71	0.2572	6.532
25	-2.01	0.1583	4.021
40	-0.97	0.0769	1.954
50	-0.39	0.0515	1.308
60	0.23	0.0336	0.854
75	1.32	0.0157	0.399
84	2.23	0.0084	0.213
90	3.09	0.0046	0.118
95	4.28	0.0020	0.052

Measure	Trask	Inman	Folk-Ward
Median, phi	-0.39	-0.39	-0.39
Median, in.	0.0515	0.0515	0.0515
Median, mm	1.308	1.308	1.308
Mean, phi	-1.14	-0.24	-0.29
Mean, in.	0.0870	0.0464	0.0480
Mean, mm	2.210	1.178	1.220
Sorting	3.174	2.471	2.469
Skewness	0.969	0.061	0.103
Kurtosis	0.183	0.648	1.001

Grain Size Description (ASTM-USCS Scale)	Coarse sand (based on Mean from Trask)

Description	Retained on Sieve #	Weight Percent
Gravel	4	21.52
Coarse Sand	10	17.90
Medium Sand	40	34.54
Fine Sand	200	19.12
Silt/Clay	<200	6.92
	Total	100

Phone: (562) 907-3607
Fax: (562) 907-3610

PTS Laboratories

PTS File No: 46250
Client: The Source Group, Inc.
Report Date: 05/05/16

ORGANIC CARBON DATA - TOC (foc)

(Methodology: Walkley-Black)

Project Name: Ellwood Commercial Real Estate
Project No: O1-ECR-001

SAMPLE ID.	DEPTH, ft.	ANALYSIS DATE	ANALYSIS TIME	SAMPLE MATRIX	TOTAL ORGANIC CARBON, mg/kg	FRACTION ORGANIC CARBON, g/g
SB-6-4'	4.55	20160504	0930	SOIL	3800	3.80E-03
SB-10-10	10.5	20160504	0930	SOIL	3850	3.85E-03
Blank	N/A	20160504	0930	BLANK	ND	ND
SRM D089-542	N/A	20160504	0930	SRM	5754	5.75E-03
				Reporting Limit:	100	1.00E-04

QC DATA

SRM ID/Lot No.	REC (%)	Control Limits	Certified Concentration mg/kg	QC Performance Acceptance Limits, mg/kg Lower	Upper
SRM D089-542	103	75-125	5610	4208	7013

ND = Not Detected

PTS Laboratories, Inc.

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

COMPANY: SGI-Apex

ADDRESS: 3478 Buskirk Ave, Ste 100 CITY: Pleasant Hill ZIP CODE: 94523

PROJECT MANAGER: Glen Smith PHONE NUMBER: (925) 951-6402

PROJECT NAME: Ellwood Commercial Real Estate FAX NUMBER:

PROJECT NUMBER: 01-ECR-001

SITE LOCATION: 500 Grand Ave, Oakland, CA

SAMPLER SIGNATURE:

PO#:

TURNAROUND TIME: 24 HOURS ☐ 48 HOURS ☐ 72 HOURS ☐ 5 DAYS ☐ NORMAL ☒ OTHER: _____

SAMPLE INTEGRITY (CHECK): INTACT ____ ON ICE ____

PTS QUOTE NO.:

PTS FILE: 46250

ANALYSIS REQUEST

SAMPLE ID NUMBER	DATE	TIME	DEPTH, FT	NUMBER OF SAMPLES	SOIL PROPERTIES PACKAGE	HYDRAULIC CONDUCTIVITY PACKAGE	PORE FLUID SATURATIONS PACKAGE	TCEQ/TNRCC PROPERTIES PACKAGE	CAPILLARITY PACKAGE	FLUID PROPERTIES PACKAGE	PHOTOLOG: CORE PHOTOGRAPHY	MOISTURE CONTENT, ASTM D2216	POROSITY: TOTAL, API RP40	POROSITY: EFFECTIVE, ASTM D425M	SPECIFIC GRAVITY, ASTM D854	BULK DENSITY (DRY), API RP40 or ASTM D2937	AIR PERMEABILITY, API RP40	HYDRAULIC CONDUCTIVITY, EPA9100, API RP40, D5084	GRAIN SIZE DISTRIBUTION, ASTM D422/4464M	TOC: WALKLEY-BLACK	ATTERBERG LIMITS, ASTM D4318	Cal EPA DTSC Vapor Intrusion Pkg				COMMENTS
SB-6-4'	16 Apr 16	0830	4'																		X				
SB-10-10	16 Apr 16	0950	10'																		X				

1. RELINQUISHED BY	2. RECEIVED BY	3. RELINQUISHED BY	4. RECEIVED BY
COMPANY: SGI-Apex	COMPANY: PTS Labs. Inc	COMPANY:	COMPANY:
DATE: 19 Apr 16 TIME: 14:50	DATE: 4/20/16 TIME: 1126	DATE: TIME:	DATE: TIME:

PTS Laboratories, Inc. • 8100 Secura Way • Santa Fe Springs, CA 90670 • Phone (562) 347-2500 • Fax (562) 907-3610

APPENDIX D

SITE-SPECIFIC HEALTH AND SAFETY PLAN

This Level 2 HASP is intended to provide health and safety guidelines for project field work meeting the following criteria:

- **"Buddy System" in use (or communication plan implemented for "lone worker"**
- **Some likelihood of chemical and/or physical hazard exposure**
- **No supplied-air respirator use**

The Project Manager should review this Health and Safety Plan with all Apex project personnel. A copy of the HASP must be kept in the field with the project team as well as maintained in project files.

<table>
<tr><td rowspan="6">Administrative Information

This document is valid for a maximum time period of one year after initial completion and must be re-evaluated by the project team at that time.

A minimum of two persons with appropriate training must be onsite or an appropriate communication plan must be implemented. A mix of Apex and other personnel can satisfy this requirement.</td><td colspan="2">Site Name and Location
Ellwood Commercial Real Estate, 500 Grand Avenue, Oakland, CA</td></tr>
<tr><td colspan="2">Client Contact and Phone
Patrick Ellwood - 1345 Grand Avenue, Suite 101, Oakland, CA 94610</td></tr>
<tr><td colspan="2">Project Name
500 Grand Avenue</td></tr>
<tr><td>Health & Safety Plan Date
TBD</td><td>Revision Number and Date
00</td></tr>
<tr><td>Field Work Start Date
TBD</td><td>Anticipated Field Work End Date
TBD</td></tr>
<tr><td>Project Manager (responsible for implementing the site health and safety program on this project)
TBD</td><td>Site Safety Officer (SSO) (responsible for overall site health and safety performance on this project).
TBD</td></tr>
</table>

Project Background and Scope of Work

Include numbered list of tasks to be completed by Apex personnel during this project, and a separate list of tasks to be completed by any subcontractors at the site.

JSAs are to be prepared for each task listed. Subcontractors are responsible for preparing JSAs for their activities.

Apex Scope of Work: Mark utilities, oversight of intrusive work associated with foundation excavation, utility corridor excavation, air monitoring during soil disturbance, collection of post excavation soil samples from impacted areas, and oversight of sampling of dewatering system (if applicable).

Subcontractor Scope of Work: Completion of intrusive foundation excavation and groundwate dewatering (if needed).

Site/Project General Information

An asterisk (*) indicates that additional checklists or permits are required and must be completed and attached to this document.

A double asterisk (**) indicates that a Risk Review performed by a member of the Corporate Safety Committee must take place prior to beginning fieldwork on the project.

Site Type (check all applicable boxes)

☐ Active Facility	☐ Remote Facility	☒ Inactive Facility	☐ Residential
☐ Mine	☐ Railroad	☐ Industrial	☐ Secured
☐ Uncontrolled	☐ Other (specify)		

Main Site Hazards (check all applicable boxes)

☒ Slip/Trip/Fall	☐ Cold Stress	☐ Heat Stress	☐ Extreme Weather
☐ Biological	☒ Organic/Inorganic Chemicals	☒ High Noise	☒ Construction Traffic
☒ Vehicular Traffic	☐ Respirable Particles	☒ Excavations	☒ Buried/Overhead Utilities
☐ Non-Ionizing Radiation	☐ Security	☐ ASTs/USTs	☐ Manlift/Cherry Picker Use
☐ Work Over 6' High*	☐ Hand/Portable Power Tools	☐ Oxygen Deficiency	☒ Construction
☐ Blasting Agents	☐ Confined Spaces	☐ Welding or Hot Work	☐ Chemical Mixing**
☐ Lockout/Tagout	☐ Forklift Use	☐ Other (*specify*)	
☐ Scaffold Use	☐ Portable Ladders	☐ Other (*specify*)	

Chemical Products Apex will Use or Store Onsite

For each chemical product identified, an SDS must be attached to this HASP

☐ Alconox or Liquinox	☐ Calibration gas (Methane)	☐ Isopropyl Alcohol
☒ Hydrochloric acid (HCl)*	☒ Calibration gas (Isobutylene)	☐ Household bleach (NaOCl)*
☐ Nitric acid (HNO_3)*	☐ Calibration gas (Pentane)	☐ Sulfuric acid (H_2SO_4)*
☐ Sodium hydroxide (NaOH)*	☐ Calibration gas (4-gas mixture)	☐ Hexane
☐ Other (specify)	☐ Other (specify)	☐ Other (specify)

***NOTE: Eyewash solution shall be readily available on ALL projects where corrosive materials are used or stored, including sample preservatives.**

Safe Work Practices

Place a checkmark by applicable SWPs and attach to this document

For hazards not covered by SWPs listed in this section, ensure the hazard is addressed in the JSA for that task. Otherwise, the JSA may reference the SWP for that hazard.

SWPs Applicable To This Project (check all applicable boxes)

☒ Hazard Communication	☒ Medical Services and First Aid	☒ Airborne Contaminants	☐ Heat Stress
☐ Cold Stress	☐ Natural Hazards	☒ Personal Protective Equipment	☒ Respiratory Protection
☐ Confined Space Entry	☐ Drum Handling	☒ Excavation	☐ Fall Protection and Prevention
☐ Forklift and Truck Operations	☐ Hand/Power Tool Use	☐ Heavy and Material Handling Equipment	☐ Ladder Safety
☐ Wet Utilities – Maintenance, Inspection, Repair	☐ **Other Task (specify)**	☐ **Other Task (specify)**	☐ **Other Task (specify)**
☐ **Other Task (specify)**	☐ **Other Task (specify)**	☐ **Other Task (specify)**	☐ **Other Task (specify)**

Levels of Protection Required for each Task

Signature of the SSO on page 1 of this document signifies certification of PPE Hazard Assessment

Task Description	Level			
	A	B	C	D
Mark excavation areas for utility locate.	☐	☐	☐	☒
Intrusive excavation oversight	☐	☐	☐	☒
Soil sampling	☐	☐	☐	☒
Dewatering system sampling	☐	☐	☐	☒
	☐	☐	☐	☐

Personal Protective Equipment	Equipment	Req	Rec	NA	Equipment	Req	Rec	NA
Req=Required Rec=Recommended An asterisk (*) indicates that employees must be a participant in the respiratory program, including, annual training and fit testing.	Steel Toe Boots	☒	☐	☐	Tyvek Suit	☐	☐	☒
	Safety Glasses Shields	☒	☐	☐	Outer Disposable Boots	☐	☐	☒
	Hi Vis Vest (Specify Class 2/3)	☒	☐	☐	Indirect Vented Goggles	☐	☐	☒
	Hi Vis Shirt	☐	☐	☒	Poly-Coated Tyvek	☐	☐	☒
	Hard Hat	☒	☐	☐	Dust Mask*	☐	☐	☒
	Fire Resistant Clothing (FRC)	☐	☐	☒	Full-Face Respirator*	☐	☐	☒
	Hearing Protection	☒	☐	☐	Half-Face Respirator*	☐	☒	☐
	Work Gloves – Type:	☐	☒	☐	Inner Chemical Gloves	☐	☐	☒
	Outer Chemical Gloves	☒	☐	☐	Other (specify)	☐	☐	☐
Training and Medical Surveillance Req=Required Rec=Recommended	**Training**	**Req**	**Rec**	**NA**	**Medical Surveillance**	**Req**	**Rec**	**NA**
	40 Hour HAZWOPER	☒	☐	☐	Medical Clearance (fit for duty)	☒	☐	☐
	Current 8 Hour HAZWOPER	☒	☐	☐	Respirator Clearance	☒	☐	☐
	8 Hour HAZWOPER Supervisor	☒	☐	☐	Blood Lead and ZPP	☐	☐	☐
	24Hour HAZWOPER	☐	☐	☐	Other (specify)	☐	☐	☐
	Current CPR and First Aid	☒	☐	☐	Other (specify)	☐	☐	☐
	10 Hour Construction	☐	☐	☐	Other (specify)	☐	☐	☐
	Other (specify)	☐	☐	☐	Other (specify)	☐	☐	☐
	Other (specify)	☐	☐	☐	Other (specify)	☐	☐	☐
	Other (specify)	☐	☐	☐	Other (specify)	☐	☐	☐
Safety Supplies Req=Required Rec=Recommended	**Supplies**	**Req**	**Rec**	**NA**	**Supplies**	**Req**	**Rec**	**NA**
	First Aid Kit	☒	☐	☐	Fire Extinguisher	☐	☐	☐
	Eyewash Solution	☒	☐	☐	Water/Sports Drink	☐	☐	☐
	Air Horn	☐	☐	☐	Oral Thermometer (heat monitoring)	☐	☐	☐
	Noise Meter (Dosimeter)	☐	☐	☐	Decontamination Supplies	☒	☐	☐

Work Zones **If exclusion zones are necessary because of chemical OR equipment hazards, describe the plan**	Exclusion Zone: Active excavation area.
	Contamination Reduction Zone: TBD pending excavation area.
	Support Zone: Construction office.

Site Access/Control **How do we limit unauthorized entry to the site itself?**	Access Control Procedures: Project site is currently a public parking lot. Site is fenced with two ingress/egress points. Work areas will be cordoned off with delineators during work. Anticipate during redevelopment Site will be fenced off from general public access.
DECON Procedures	Decontamination Procedures: Decon will be performed in a cordoned off area away from ingress/egress points.

Communication Plan **In the event work must be completed alone by an Apex employee or work is performed in a rural area with limited communication, this Communication Plan must be completed.**	The purpose of the communication plan is to provide a "What to Do" if the project manager/supervisor cannot contact field personnel. The field team and PM must coordinate a call in time daily. The check-in intervals will depend on the project setting and hazards. More importantly, if the field team does not check in, what is the requirement or actions of the PM.			
	Daily Check in Time	Responsible Person	Daily Check In Time	Responsible person
	Plan of Action (in the event of no communication):			

Chemicals of Concern

In the section to the right, check any chemicals present onsite in any media (air, soil water).

In the table below, list chemicals suspected or confirmed to be onsite, and provide requested information.

- ☐ Friable Asbestos
- ☐ RCRA Metals
- ☐ Lead
- ☒ Benzene
- ☐ Trichloroethylene (TCE)
- ☐ Tetrachloroethylene (PCE)
- ☒ Other Naphthalene
- ☒ Other TPH
- ☐ Other
- ☐ Vinyl chloride
- ☐ Inorganic Arsenic
- ☐ Cadmium
- ☐ Formaldehyde
- ☐ Fuel Oils
- ☐ Methylene chloride
- ☐ Other
- ☐ Other
- ☐ Other
- ☐ Toluene
- ☐ Ethylbenzene
- ☐ Xylene
- ☐ Polyaromatic hydrocarbons (PAHs)
- ☐ Polychlorinated biphenyl (PCBs)
- ☐ Chromium (VI)
- ☐ Other
- ☐ Other
- ☐ Other

Materials Present or Suspected at Site	Highest Reported Concentration (specify units and sample medium)	Exposure Limit (specify ppm or mg/m³)	IDLH Level (specify ppm or mg/m³)	Primary Hazards of the Material (explosive, flammable, corrosive, toxic, volatile, radioactive, biohazard, oxidizer, or other)	Symptoms and Effects of Acute Exposure	Ionization Potential (eV)
			No Apex exposure to these			
Benzene	Soil <250 ug/Kg GW 740 ug/L	PEL = 1 ppm ST 5ppm) REL = 0.1 ppm TLV = 0.5 ppm Skin Hazard ☒		Toxic, flamable	Exposure Routes inhalation, skin absorption, ingestion, skin and/or eye contact Symptoms irritation eyes, skin, nose, respiratory system; dizziness; headache, nausea, staggered gait; anorexia, lassitude (weakness, exhaustion); dermatitis; bone marrow depression; [potential occupational carcinogen] Target Organs Eyes, skin, respiratory system, blood, central nervous system, bone marrow	9.24 eV
Ethylbenzene	Soil 4,300 ug/Kg GW 710 ug/L	PEL = 100 ppm REL = 100 ppm TLV = 20 ppm Skin Hazard ☒		Toxic, flamable	Irritation eyes, skin, mucous membrane; headache; dermatitis; narcosis, coma	9.24 eV
Napthalene	Soil 6,500 ug/Kg GW 710 ug/L	PEL = 10 ppm REL = 10 ppm TLV = 10 ppm Skin Hazard ☒		Toxic, flamable		9.24 eV
TPH-gasoline	Soil 590 mg/Kg GW 15,000 ug/L	PEL = 300 ppm REL = 300 ppm TLV = 300 ppm Skin Hazard ☒		Toxic, flamable	Irritation to eyes, skin, mucous membrane; dermatitis; headache; nausea; fatigue; dizziness; blurred vision; slurred speech; mental confusion; convulsion; if aspirated, chemical pneumonitis and pulmonary edema	9.24 eV

PEL = OSHA Permissible Exposure Limit
REL = NIOSH Recommended Exposure Limit
TLV = ACGIH Threshold Limit Value
IDLH = Immediately Dangerous to Life or Health

Monitoring Equipment: All monitoring equipment on site must be calibrated before and after each use and results recorded.				
Instrument (Check all required)	**Task**	**Instrument Reading**	**Action Guideline**	**Comments**
☐ Combustible gas indicator model:	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5	0 to 10% LEL	Monitor; evacuate if confined space	
		10 to 25% LEL	Potential explosion hazard	
		>25% LEL	Explosion hazard; interrupt task; evacuate site	
☐ Oxygen meter model:	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5	>23.5% Oxygen	Potential fire hazard; evacuate site	
		23.5 to 19.5% Oxygen	Oxygen level normal	
		<19.5% Oxygen	Oxygen deficiency; interrupt task; evacuate site	
☐ Radiation survey meter model:	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5	Normal background	Proceed	
		Two to three times background	Notify SSO	
		>Three times background	Radiological hazard; interrupt task; evacuate site	
☒ Photoionization detector model: ☐ 11.7 eV ☐ 10.6 eV ☒ 10.2 eV ☐ 9.8 eV ☐ _____ eV	☐ 1 ☒ 2 ☐ 3 ☐ 4 ☐ 5	Any response above background to 1 ppm above background	Level D is acceptable	Action levels must be determined based on the COCs and concentrations identified in the media sampled. If no COC conentrations are known, then use 5 ppm sustained within the breathing zone as your action level until the contaminants are identified.
		>1 ppm above background	Level C (not anticipated)	
		10 ppm above background	Discontinue work	
☐ Flame ionization detector model:	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5	Any response above background to ppm above background	Level C is acceptable Level B is recommended	
		ppm above background	Level B	
		above background	Level A	
☐ Detector tube models:	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5	Specify:	Specify:	
☐ Other (specify):	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5	Specify:	Specify:	

Emergency Response Planning	
In the pre-work briefing and Daily Tailgate Safety meetings, all onsite employees will be trained in the provisions of emergency response planning, site communication systems, and site evacuation routes. **Signal a site emergency or medical emergency with three blasts of a loud horn (car horn, fog horn, or similar device).** **To complete this section, attach a hospital route map to the HASP.**	**All work-related incidents must be reported. For all medical emergencies, call 911 or the local emergency number. For non-emergency incidents, you must:** • Give appropriate first aid care to the injured or ill individual and secure the scene. • Immediately call **WorkCare at (888) 449-7787** (available 24 hours/7 days per week) if the injured person is an Apex employee. • Notify the Project Manager and/or SSO after calling WorkCare. • Enter the safety incident into the Apex Incident Report and submit to incidents@apexcos.com within 24 hours. **In the event of an emergency that necessitates evacuation of the work task area or the site as a whole, the following procedures shall occur:** • The Apex site supervisor or Project Manager will contact all nearby personnel using the onsite communications system to advise of the emergency. • Personnel will proceed along site roads to a safe distance upwind from the hazard source to a pre-determined assembly area. • Call 911 • Personnel will remain in that area until the site supervisor or Project Manager or other authorized individual provides further instruction. **In the event of a severe spill or leak, site personnel will follow the procedures listed below:** • **STOP WORK** • Evacuate the affected area and relocate personnel to an upwind, pre-determined assembly area. • Inform the Apex site supervisor or Project Manager, an Apex office, and a site representative immediately. • Locate the source of the spill or leak, and stop the source if it is safe to do so until appropriately trained personnel are onsite to do so. Begin containment and recovery of spilled or leaked materials. • Notify appropriate local, state, and federal agencies after obtaining client consent to do so. **In the event of severe weather, site personnel will follow the procedures listed below:** • Site work shall not be conducted during severe weather, including high winds and lightning. • In the event of severe weather, stop work, lower any equipment (drill rigs), and evacuate the affected area. • Monitor internet or other sources for sever weather alerts before resuming work. • In the event of lightning, outdoor work must be halted for a minimum of **30 minutes** from the last lightening observation.

Emergency Contacts	Name	Location	Phone	Cell Phone
Hospital (attach map)	Highland Hospital	1411 E 31st St, Oakland, CA	(510) 437-4800	
Police	Oakland Police Department		(510) 777-3333 or 911	
Fire	Oakland Fire Department		911 or (510) 238-4030	
Project Manager	TBD			
Field Manager (if not PM)	TBD			
Site Safety Officer (if not PM)				
Division H&S Contact	TBD			
Corporate H&S Contact	Joe Schmids	Malvern, PA	610-722-9050	484-467-9333
Incident Intervention	WorkCare	NA	888-449-7787	
Subcontractor Safety Contact				
Subcontractor Safety Contact				

Acknowledgement	***I have read, understood, and agree with the information set forth in this Health & Safety Plan, and will follow guidance in the plan and in the Apex Corporate Health and Safety Manual. I understand the training and medical monitoring requirements for conducting activities covered by this HASP and have met these requirements.*** ***Apex has prepared this plan solely for the purpose of protecting the health and safety of Apex employees. Subcontractors, visitors, and others at the site are required to follow provisions in this document at a minimum, but must refer to their organization's health and safety program for their protection.***		
Printed Name	Signature	Organization	Date

Approval Signatures

Signatures in this section indicate the signing employee will comply with and enforce this HASP, as well as procedures and guidelines established in the Apex Corporate H&S Manual. Signatures in this section also indicate that any subcontractors performing work under contract to Apex agree to comply with this HASP.

ATTACHMENT E: AIR QUALITY AND GREENHOUSE GAS EMISSIONS SCREENING

500 Grand Avenue Project Air Quality and GHG Emissions Screening

Operational Air Quality (AQ) and Greenhouse Gas (GHG), and Construction AQ - Comparison to BAAQMD Screening Levels

		Operational AQ			Operational GHG			Construction AQ		
Developmen Type	Project Proposal	Screening Size	% Screening Size	Over Threshold?	Screening Size	% Screening Size	Over Threshold?	Screening Size	% Screening Size	Over Threshold?
Residenitial (units)	39	494	8%	No	87	45%	No	240	16%	No
Retail (ksf)	2.997	99	3%	No	19	16%	No	277	1%	No
				No			No			No
				No			No			No
				No			No			No
				No			No			No
Total			11%	No		61%	No		17%	No

Screening sizes from Table 3-1 of BAAQMD's CEQA Air Qulity Guidelines, May 2011 version.
It is not included in the current May 2012 version because they have removed the thresholds per the CBIA vs BAAQMD court case.
"Regional shopping center"/"Strip mall" uses in the BAAQMD table were used for unspecified retail use.

500 Grand Ave Project, TAC Screening Summary and Highway/Roadway Sources

Highway/High Volume Roadway 1000 ft Screening for 500 Grand Ave Project

Highways	Side of Road	Distance Measured	Distance Rounded Down	Cancer Risk	PM 2.5	Hazard Index
580	W	785 ft	750 ft	2.806	0.02	na

Roadways	Direction	AADT	Side of Road	Distance	Cancer Risk	PM 2.5	
Grand Ave	EW	23322	N	15 ft	22.05	0.44	na

Summary 1000 ft Screening for 500 Grand Ave Project, Stationary and Highway/Roadway Sources

Sum of Highways/Roadways	**24.9**	**0.46**	**na**
Sum of Stationary Sources	**13.5**	**0.00**	**0.04**
Sum of all Screening Sources	**38.4**	**0.46**	**0.04**
BAAQMD Cumulative Source Threshold	100.0	0.80	10.00

NOTES:
Highway Screening data is from BAAQMD Highway Screening Tool (6ft), Alameda County 2011
Roadway Cancer Risk and PM 2.5 concentrations were generated using BAAQMD's Roadway Screening Analysis Calculator, Alameda County, dated 4/16/15
Roadway AADT is from the closest reported segment in the Oakland Houseing Element EIR Appendix D
Hazard Index is not generally exceeded by roadway sources so is not reported in all methodologies or here.
Stationary Source Screening is details on the following pages.

Stationary Sources Within 1,000 feet of 500 Grand Ave Project

Data and Map from BAAQMD Stationary Source Screening Tool, Alameda County 2012

			Levels for the Calcs
Cancer, Sum of Stationary Sources			**13.5**
Hazard, Sum of Stationary Sources			**0.036**
PM25, Sum of Stationary Sources			**0.000**
~~Alameda_May_2012_schema:FID~~	~~997~~	While shown on the map, this location is	
~~Alameda_May_2012_schema:PlantNo~~	~~G725~~	now vacant and the gas station has been	
~~Alameda_May_2012_schema:Name~~	~~Chevron #0121~~	removed. Health risk information is no	
~~Alameda_May_2012_schema:Address~~	~~3026 Lakeshore Ave~~	longer applicable from this location and has	
~~Alameda_May_2012_schema:City~~	~~Oakland~~	been omitted from calculations. Note that	
~~Alameda_May_2012_schema:UTM_East~~	~~566081~~	the actual location of this source is also over	
~~Alameda_May_2012_schema:UTM_North~~	~~4184887~~	1000 feet from the Project.	
~~Alameda_May_2012_schema:Cancer~~	~~34.538~~		
~~Alameda_May_2012_schema:Hazard~~	~~0.052~~		
~~Alameda_May_2012_schema:PM25~~	~~na~~		
Alameda_May_2012_schema:FID	1768		
Alameda_May_2012_schema:PlantNo	5364		
Alameda_May_2012_schema:Name	Young's One Hour Martinizing		
Alameda_May_2012_schema:Address	600 GRAND AVE, SUITE 100		
Alameda_May_2012_schema:City	Oakland		
Alameda_May_2012_schema:UTM_East	566080.871		
Alameda_May_2012_schema:UTM_North	4184808.105		
Alameda_May_2012_schema:Cancer	13.5		13.5
Alameda_May_2012_schema:Hazard	0.036		0.036
Alameda_May_2012_schema:PM25	0		0.000

The yellow line is 1000 feet. BAAQMD methodology requires screening of sources within 1000 feet of the Project.
Many of the locations are not correct. The green arrows indicate the actual location of the sources in the area.
A dashed green line indicates that the actual location is off the map in that direction.

ATTACHMENT F: TRIP GENERATION ANALYSIS

FEHR PEERS

DRAFT MEMORANDUM

Date: September 13, 2016

To: Bruce Kaplan, Lamphier-Gregory

From: Sam Tabibnia and Ron Ramos

Subject: 500 Grand Avenue – Preliminary Transportation Impact Analysis

OK16-0130

This memorandum summarizes our assessment of vehicle trip generation for the proposed development at 500 Grand Avenue in Oakland. The project would consist of 40 multi-family residential units and 3,000 square feet of ground floor commercial space at the northeast corner of the Grand Avenue/Euclid Avenue intersection in Oakland. The site is currently occupied by a public parking lot and an existing building.

Trip generation estimates were developed in accordance with the City of Oakland's *Transportation Impact Study Guidelines* (November 26, 2013). According to the guidelines, a detailed Transportation Impact Study is required if a project is expected to generate 50 or more peak hour automobile trips. For most projects generating fewer than 50 peak hour automobile trips, only a trip generation analysis documenting the project's trip generation characteristics is required. However, the ultimate decision to conduct a Transportation Impact Study and potential content of that study rests with City of Oakland staff.

Based on our analysis, the proposed project would generate approximately 516 daily, 48 AM peak hour, and 38 PM peak hour trips on a typical weekday. Since the project is estimated to generate fewer than 50 peak hour trips, no detailed Transportation Impact Study is required.

The rest of this memorandum presents our trip generation analysis in more detail.

TRIP GENERATION

Vehicular Trip Generation

Trip generation is the process of estimating the number of vehicles that would likely access the project. **Table 1** summarizes the trip generation for the proposed project. Trip generation data

published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual* (Ninth Edition) was used as a starting point to estimate the project vehicle trip generation.

Trip generation for the residential component of the project is estimated using the ITE land use category "Apartments" (land use code 210). Although the specific tenant have not yet been identified for the commercial component of the project, the site is expected to be occupied by retailers serving the local neighborhood. To be conservative, the land use category "High-Turnover Restaurant" (land use code 932) is used for the 3,000 square feet of the ground-floor commercial.

The ITE data is based on data collected at mostly single-use suburban sites where the automobile is often the only travel mode. However, the project site is in a dense mixed-use urban environment where many trips are walk, bike, or transit trips. Since the proposed project is about 1.1 miles from the 19th Street BART Station, the city of Oakland Transportation Impact Study Guidelines provide an 8.6 percent reduction from the ITE-based trip generation to account for the non-automobile trips. This reduction is based on the Bay Area Travel Survey (BATS) 2000 which shows that the non-automobile mode share for areas more than one-mile of a BART Station in Alameda County is about 8.6 percent. A 2011 research study shows reducing ITE-based trip generation using BATS data results in a more accurate estimation of trip generation for urban mixed-use developments than just using ITE based trip generation.[1]

Pass-by trips are trips attracted to a site from adjacent roadways as an intermediate stop on the way to a final destination. Pass-by trips alter travel patterns in the immediate study area, but do not add new vehicle trips to the roadway network, and should therefore be excluded from trip generation estimates. According to ITE's *Trip Generation Handbook* (3rd Edition), the average weekday PM peak hour pass-by is 43 percent for restaurant. No pass-by reductions were applied to the AM peak hour and it was assumed that on a daily basis there would be a 21 percent reduction.

This trip generation estimate is conservative and it does not account for the trips generated by the existing parking lot and building on the site that would be eliminated by the proposed project.

Table 1 presents the estimates of automobile project trip generation. The project would generate approximately 516 daily, 48 AM peak hour, and 38 PM peak hour trips.

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1 *Evaluation of the Operation and Accuracy of Five Available Smart Growth Trip Generation Methodologies.* Institute of Transportation Studies, UC Davis, 2011.

TABLE 1: AUTOMOBILE TRIP GENERATION SUMMARY

Land Use	Units[1]	ITE Code	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Residential	40 DU	220 [2]	266	4	17	21	16	9	25
Restaurant	3.0 KSF	932 [3]	381	18	14	32	18	12	30
Subtotal			647	22	31	53	34	21	55
Non-Auto Reduction (-8.6%)[4]			-56	-2	-3	-5	-3	-2	-5
Subtotal			591	20	28	48	31	19	50
Pass-by-reduction[5]			-75	0	0	0	-6	-6	-12
Net New Project Trips			**516**	**20**	**28**	**48**	**25**	**13**	**38**

1. DU = Dwelling Units, KSF = 1,000 square feet.
2. ITE Trip Generation (9th Edition) land use category 220 (Apartment):
   Daily: T = 6.65*(X)
   AM Peak Hour: T = 0.51*(X) (20% in, 80% out)
   PM Peak Hour: T = 0.62*(X) (65% in, 35% out)
3. ITE Trip Generation (9th Edition) land use category 932 (High-Turnover (Sit-Down) Restaurant):
   Daily: T = 127.15*(X)
   AM Peak Hour: T = 10.81*(X) (55% in, 45% out)
   PM Peak Hour: T = 9.85*(X) (60% in, 40% out)
4. Reduction of 8.6% assumed based on City of Oakland Transportation Impact Study Guidelines data for development in an urban environment with a distance greater than one mile of a BART Station.
5. PM peak hour pass-by rates based on *ITE Trip Generation Handbook* (3rd Edition). The weekday PM peak hour average pass-by rates for land use category 932 is 43%. Pass-by rates are not applied to the AM peak hour. Half the reduction (21%) is applied to the daily trips.

Source: Fehr & Peers, 2016.

Non-Vehicular Trip Generation

Consistent with City of Oakland Transportation Impact Study Guidelines, **Table 2** presents the estimates of project trip generation for all travel modes.

TABLE 2: TRIP GENERATION BY TRAVEL MODE

Mode	Mode Share Adjustment Factors[1]	Daily	Weekday AM Peak Hour	Weekday PM Peak Hour
Automobile	91.4%	516	48	38
Transit	9.8%	55	5	4
Bike	2.5%	14	1	1
Walk	13.2%	75	7	6
Total Trips		**660**	**61**	**49**

1. Based on *City of Oakland Transportation Impact Study Guidelines* assuming project site is in an urban environment within 0.5 miles of a BART Station.

Source: Fehr & Peers, 2016.

Please contact us with questions or comments.