Mission Crossings Mixed-Use Project
City of Hayward, Alameda County, California

Addendum

to the Mission Boulevard Corridor Specific Plan

Final Program Environmental Impact Report

SCH No. 2011042076

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April 2017

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1.0 INTRODUCTION

This Addendum, checklist, and attached supporting documents have been prepared to document that Final Environmental Impact Report (FEIR) (State Clearinghouse Number 2011042076) for the Mission Boulevard Corridor Specific Plan ("Specific Plan" or "MBCSP") adequately addresses the potential environmental impacts of the proposed Mission Crossings Mixed-Use Project ("proposed project"), proposed at 25501 and 25551 Mission Boulevard and 671 Berry Avenue (collectively, "project site") in the City of Hayward, California pursuant to the California Environmental Quality Act (CEQA) (Pub. Resources Code, Section 21000, et seq.) and that no subsequent or supplemental EIR is required.

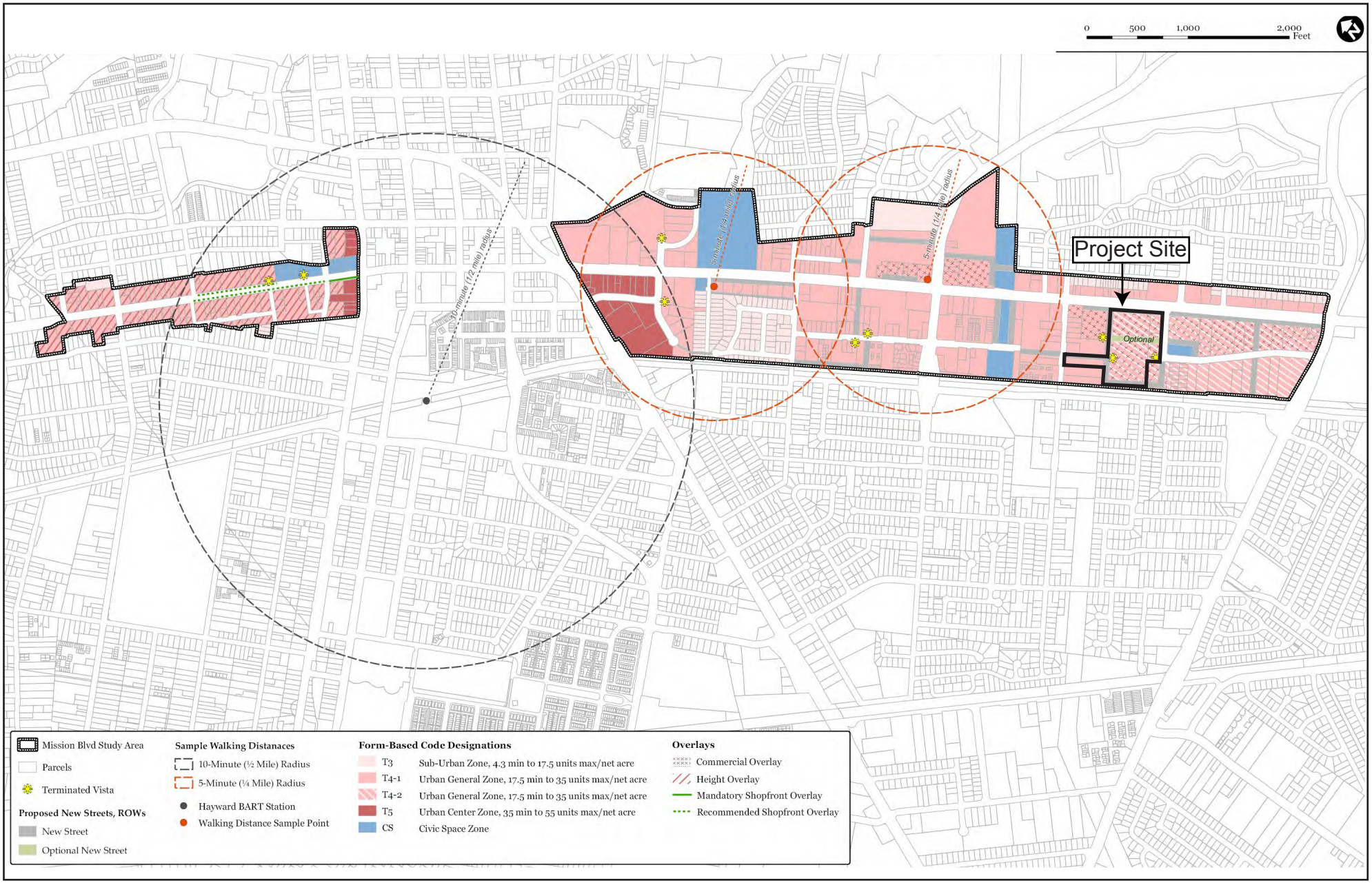
2.0 PURPOSE AND BACKGROUND

The project site is located within the area covered by the Specific Plan as shown in **Figure 2-1**. In October 2013, the Hayward City Council certified the FEIR for the Specific Plan and adopted the Mitigation Monitoring and Reporting Program (MMRP) pursuant to the California Environmental Quality Act (CEQA).

The Specific Plan encompasses approximately 600 parcels with a total area of 240 acres, and spans a total length of approximately two miles along two segments of Mission Boulevard in the City of Hayward. The Specific Plan's northern segment extends from the northern City boundary (just north of Rose Street) south to A Street and the North Hayward Neighborhood Plan also applies to this segment. The southern segment of the Specific Plan area extends from Jackson Street south to Harder Road and the Mission-Foothills Neighborhood Plan applies to that segment.

The Specific Plan established a succinct set of new policies and replaced the majority of the Zoning regulations applicable to the Specific Plan area. This included requisite amendments to the Zoning Map resulting in the application of Transect Zones and Civic Space Zones. Additionally, the General Plan Land Use Map designations for most private parcels within the Specific Plan area were changed to Sustainable Mixed Use to ensure consistency. Existing and/or planned public schools, parks or mass-transit facilities were designated as Parks and Recreation or Public/Quasi-Public designation. The Specific Plan also includes a Thoroughfare Plan that implements the Hayward General Plan's direction to pursue opportunities for infill development and redevelopment to accommodate alternate street patterns, including shorter block lengths, interconnected streets, alleys, and cul-de-sac avoidance.

Under the Specific Plan, that portion of the project site at 25501 and 25551 Mission Boulevard is designated as T4-2 Urban General Zone (with a minimum of 17.5 and a maximum of 35 dwelling units per net acre) with Commercial Overlay Zone 1 (Ground-Floor Residential Prohibited) in the eastern



SOURCE: Mission Boulevard Corridor Specific Plan Draft EIR, 2013

FIGURE **2-1**

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Regulating Plan for the Mission Boulevard Corridor Specific Plan

portion, and T4-2 Urban General Zone with Commercial Overlay Zone 2 (Ground-Floor Residential Needs Conditional Use Permits) in the western portion. That portion of project site at 671 Berry Avenue is designated as T4-1 Urban General Zone (with 17.5 minimum and 35 units maximum per net acre with no overlay).[1] The project site boundaries are depicted in **Figure 2-1**. In addition, the Specific Plan Land Use Map designates the project site as Sustainable Mixed Use (up to 100 dwelling units per acre). The Specific Plan also includes new thoroughfares segments along the perimeter of the project site as depicted in **Figure 2-2**.

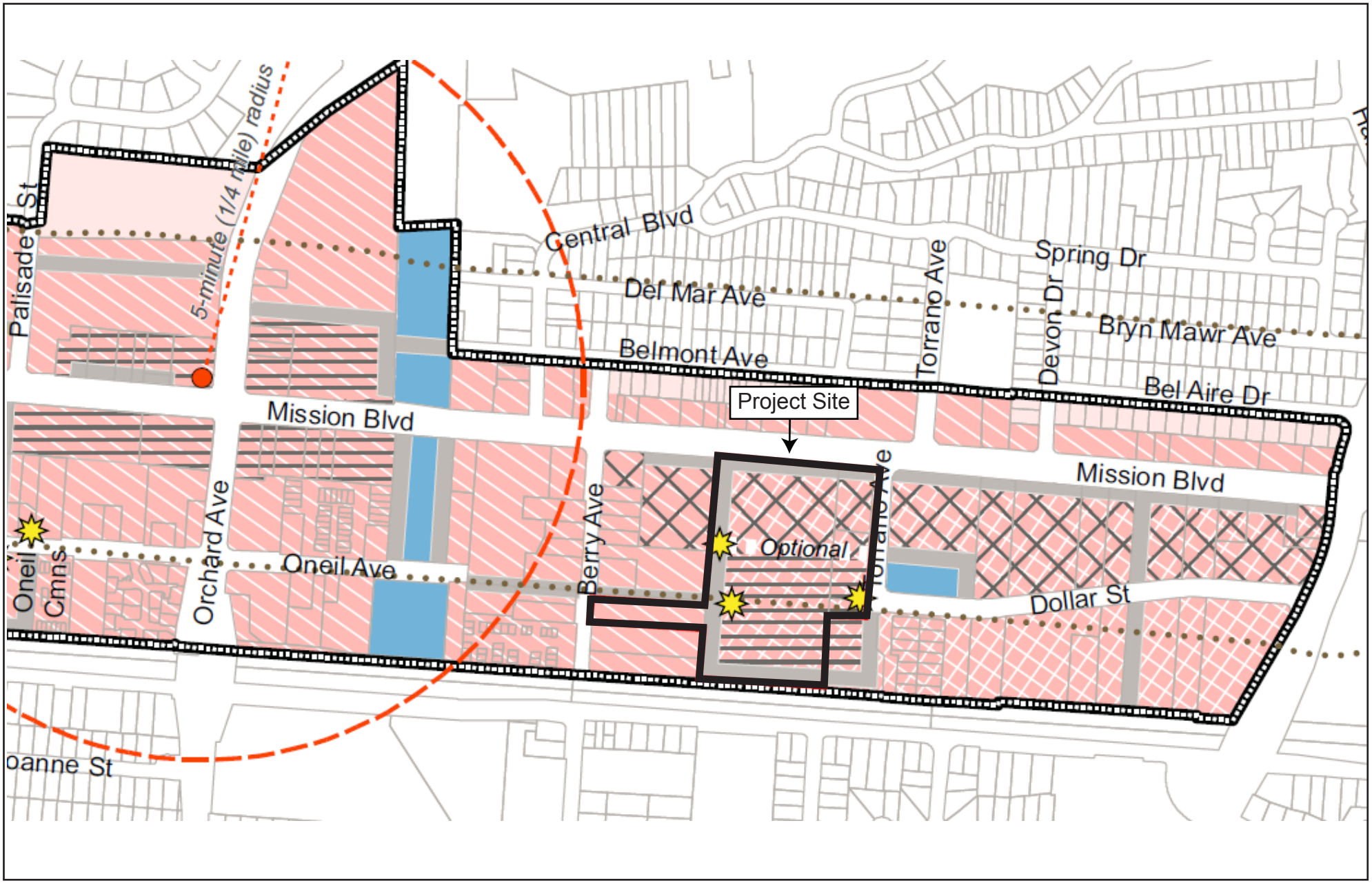
The proposed development at the project site would require a change in the zoning designation for a portion of the project site from T4-2 Urban General Zone with a Commercial Overlay Zone 1 to T4-2 Urban General Zone with a Commercial Overlay Zone 2 to allow ground floor residential with Conditional Use Permits.

On July 1, 2014, the City Council certified the Hayward 2040 Final General Plan EIR. The General Plan is the City's overarching planning document and provides a blueprint for growth and development by setting land use policy citywide. The General Plan's land use policies support the implementation of the Specific Plan to guide future development and infrastructure improvements within the Mission Boulevard Corridor area.

The City of Hayward has prepared this Addendum to document that the environmental effects of the Mission Crossings Mixed-Use project were adequately analyzed in the MBCSP FEIR, certified in October 2013, and that there are no changes in the project or in circumstances or substantial new information that would trigger the need for further environmental review under CEQA. As noted above, the 2040 General Plan's Final EIR was completed after the certification of the MBCSP FEIR. Therefore, as applicable, the analysis in this addendum relies on the analysis and findings identified in the 2040 General Plan Final EIR.

The CEQA Guidelines provide that where none of the conditions requiring the preparation of a subsequent or supplemental EIR are met, a lead agency prepare an Addendum to the previously certified EIR, and include a brief explanation of the decision to not prepare a subsequent or supplemental EIR supported by substantial evidence (Section 15164). Based on the analysis below, this Addendum concludes that the proposed Mission Crossing Mixed-Use project would not result in a new environmental impact previously not evaluated in the MBCSP FEIR, an increase in the severity of significant adverse impacts previously identified and studied in the MBCSP FEIR, nor would the project

[1] The T4-1 Zone is differentiated from the T4-2 Zone by its maximum front yard setback (i.e., T4-1: 24 foot maximum; T4-2: 40 foot maximum) and by its maximum block perimeter (i.e., T4-1: 2,400 foot maximum; T4-2: 2,800 foot maximum).



SOURCE: Mission Boulevard Corridor Specific Plan, 2013

FIGURE **2-2**

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Thoroughfare Segments Located on the Project Site

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require the adoption of any new or considerably different mitigation measures, or otherwise trigger the need for further environmental review. Therefore, this Addendum, combined with the MBCSP FEIR, provides environmental review appropriate for the approval of the proposed project.

3.0 CEQA REQUIREMENTS

CEQA Guidelines Section 15164(a) states that the lead agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in CEQA Guidelines Section 15162 calling for preparation of a subsequent or supplemental EIR have occurred. Section 15164(c) states than an addendum does not need to be circulated for public review. Section 15164(d) provides that the decision-making body shall consider the addendum in conjunction with the certified EIR prior to making a decision on the project. Section 15164(e) requires documentation of the decision not to prepare a subsequent or supplemental EIR pursuant to Section 15162.

CEQA Guidelines Section 15162(a) provides that once an EIR has been certified, no subsequent EIR shall be prepared unless the lead agency determines, on the basis of substantial evidence, one or more of the following:

- Substantial changes are proposed in the project which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

- Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

- New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete, shows any of the following:

  – The project will have one or more significant effects not discussed in the previous EIR;

  – Significant effects previously examined will be substantially more severe than shown in the previous EIR;

  – Mitigation measures previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

- Mitigation measures which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

This Addendum has been prepared to satisfy the requirements of CEQA Guidelines Sections 15164(b), 15164(d), and 15164(e).

4.0 PROJECT DESCRIPTION

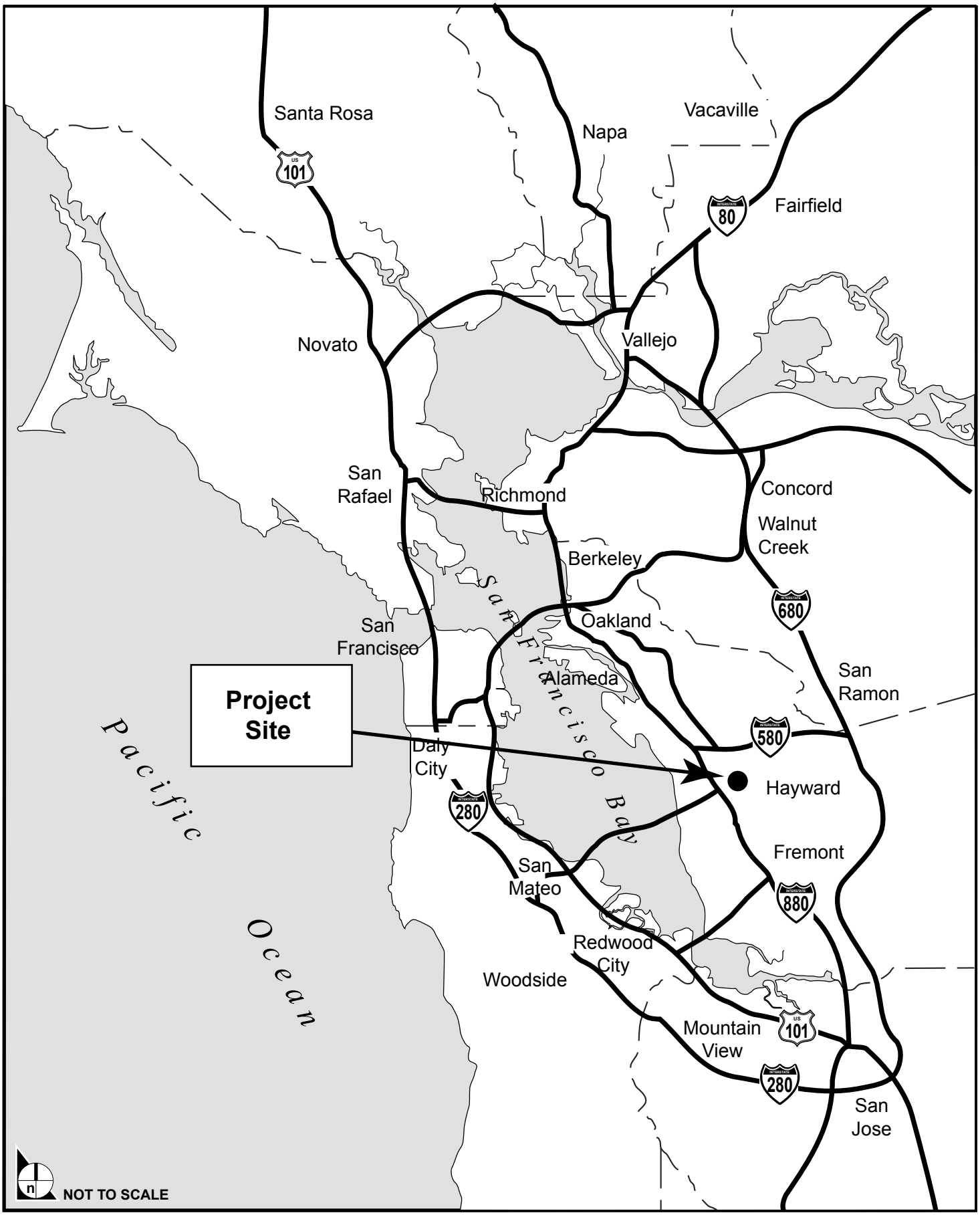
4.1 Project Location

The project site is located within the Mission Boulevard Corridor in the City of Hayward (see **Figure 4-1, Regional Location**). The project site is approximately 9.73 acres and is comprised of four parcels with three commercial parcels located at 25501 and 25551 Mission Boulevard (APN 444-0060-019, 444-0060-030, and 444-0060-031) and an adjacent longitudinal residential parcel at 671 Berry Avenue (APN 444-0060-004) (see **Figure 4-2, Project Site**). The project site is bound by Mission Boulevard to the east, Torrano Avenue to the south, and the Bay Area Rapid Transit (BART) right-of-way to the west. Immediately to the north are industrial and residential developments.

Interstate 880 and 580, along with State Route 92 provide regional access to the project site. Public transportation near the project site include the BART with the Hayward BART Station—699 'B' Street, located 1.5 miles to the northwest and the South Hayward BART Station—28601 Dixon Street, located 2.2 miles to the southeast. The Alameda-Contra Costa Transit District (AC Transit) has four bus lines that stop within the vicinity of the project site. The bus lines down Mission Boulevard are the 22, 99, and 801, and the 37 line follows Whitman Street, which runs behind the proposed project site. There are nine bus stops for these lines within a ½ mile radius of the project site, the closest bus stops are located along Mission Boulevard at the intersections of Berry Avenue and Torrano Avenue. Class III Bike Routes are located along Orchard Avenue, Carlos Bee Boulevard, and Whitman Street near the project site.

4.2 Existing Conditions

Three commercial buildings with associated surface parking lot of about 315,000 square feet are located at 25501 and 25551 Mission Boulevard. Two of the commercial buildings formerly occupied by Hayward Ford Car Dealership are currently vacant. The third building, located at the southeast corner of the project



SOURCE: Impact Sciences, 2016

FIGURE **4-1**

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Regional Location

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SOURCE: Google Earth, 2016

FIGURE **4-2**

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Project Site

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site, is currently occupied by Blue Star Motors (used cars dealership). A vacant single-family home and an unpaved lot with a few ornamental trees are located at 671 Berry Avenue. The entire project site has the General Plan land use designation of Sustainable Mixed-Use. The project site at 671 Berry Avenue is zoned T4-1 Urban General Zone by the City's zoning code, while 25501 & 25551 Mission Boulevard are zoned as T4-2 Urban General Zone with Commercial Overlay Zone 1 in the eastern portion and T4-2 Urban General Zone with Commercial Overlay Zone 2 in the western portion.

4.3 Surrounding Land Uses

The neighborhood near the project site is characterized by a mix of light industrial, commercial, and residential uses. A used-car lot, an auto body shop, and multi-family residences are located to the north of the project site. Light industrial and commercial properties located to the east along Mission Boulevard include an auto part shop, auto repair, a car wash, a liquor store, and a small grocery store. A car dealership is located to the south on Torrano Avenue. Immediately adjacent to the project site to the southwest is an auto body repair shop. Land uses to the west of the project site beyond the BART right-of-way include high density and low density residential areas. Residential developments front the north side of Berry Avenue.

4.4 Project Features and Operations

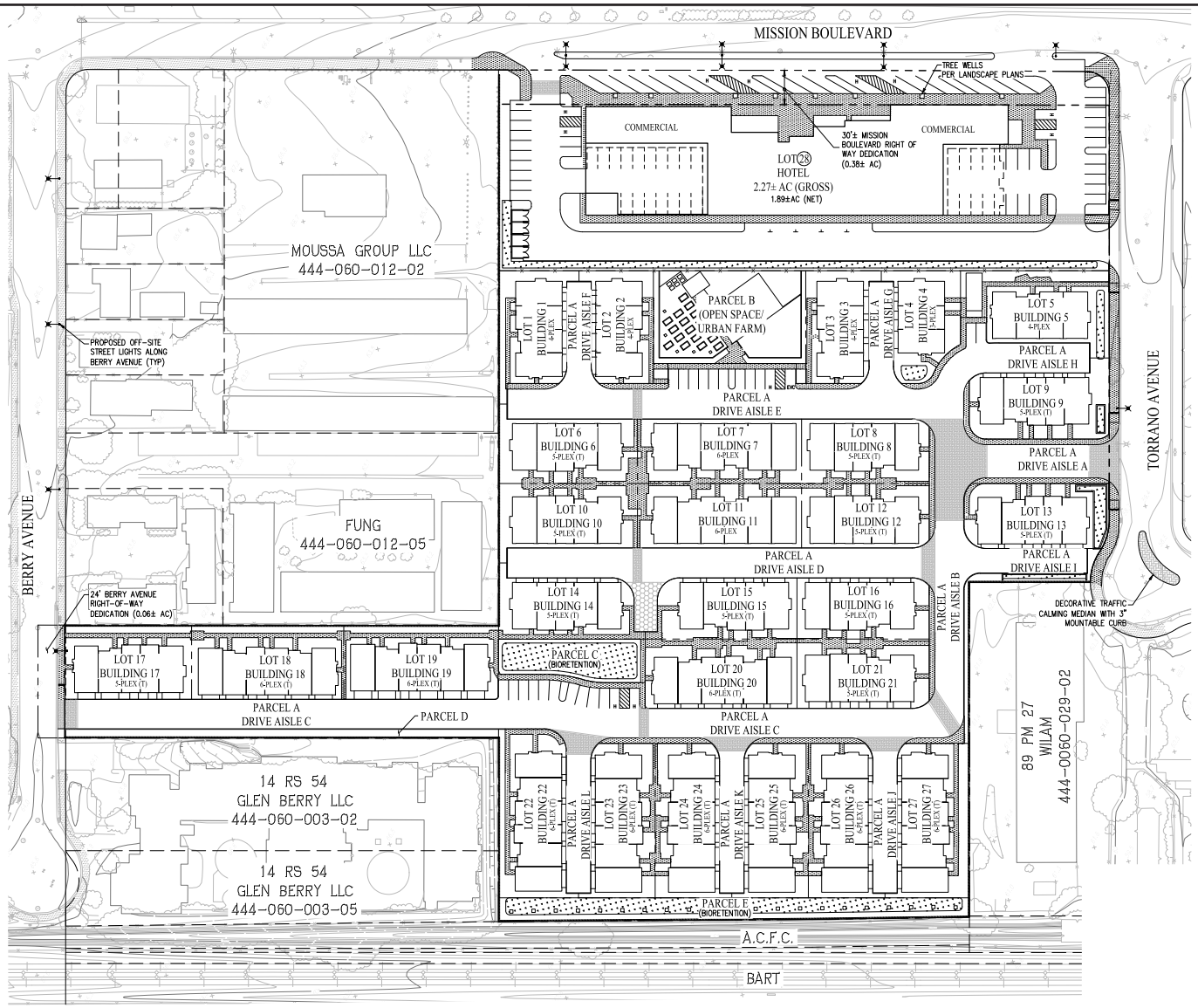
The proposed project would demolish the existing structures on the project site and construct a commercial/residential mixed-use development that would include a hotel (such as a Marriott Residence Inn Hotel) and townhomes, as shown on **Figure 4-3, Proposed Site Plan**.

Residential

The residential component would have up to 140 three-story townhomes ranging from two to four bedrooms within a mix of 4-plex, 5-plex and 6-plex buildings, totaling 27 buildings. The residential area would occupy approximately 7.76 acres of the project site and would include approximately 119,495 gross square feet of residential building space and 38,700 square feet of open space. The proposed project would have windows with a minimum STC rating of 32 for Buildings 22 through 27 and forced-air mechanical ventilation in all residences.[2] The condominiums would be maintained and managed by an off-site management company retained by the homeowners association. On-site employees would be limited to shifts of gardeners twice per week to maintain project site landscaping.

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2 STC is a single figure rating designed to give an estimate of the sound insulation properties of a partition. Numerically, STC represents the number of decibels of speech sound reduction from one side of the partition to the other. The use of sound insolation applying a STC rating of 30 to 35 reduces sound to the level where phrases and some sentences are understood without straining to hear.



SOURCE: Carlson, Barbee & Gibson, Inc., 2017

FIGURE **4-3**

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Proposed Site Plan

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Hotel

The hotel component would occupy approximately 2 acres of the project site and would include a 4-story hotel building with up to 93 rooms and approximately 7,225 square feet of community-serving retail uses and meeting space. The hotel building would be approximately 57 feet in height with the retail uses on the ground floor, hotel rooms on floors 2 through 4, and a top-floor penthouse. The hotel would have windows with a minimum STC rating of 32 for bedroom windows facing Mission Boulevard. Operation of the hotel would require about 28 full-time employees but it is anticipated there would not be more than 15 employees per shift. It is estimated that retail uses would require approximately 19 full-time employees however, only about 10 employees would be on-site at a time.

4.5 Open Space and Landscaping

As mentioned above, the proposed project would provide approximately 38,700 square feet of common open space, which would include an approximately 16,000 square foot open space/urban farm area. The open space/urban farm area would feature a community garden with raised planter beds and a fenced-off play area with climbing rocks for children. This open space area would also include a section with table seating, benches, and an outdoor kitchen shaded by a large pergola. Common open space areas would also be located within walkways and common areas between the residential buildings. Additionally, a total of approximately 13,800 square feet of private open space would be provided as balconies of the townhomes. The project would include vertical landscaping elements, trees along private streets, and a landscaped path along the development frontage. All landscaped areas would be minimum 5 feet wide. A landscape buffer would be provided between core activities in common open spaces, while individual units would have an entry with a landscape buffer to create a sense of garden effect. Small trees and shrubs are proposed between driveways to provide vertical relief and interest at the pedestrian level. Landscaping for the proposed project would include elements such as shade trees, evergreen screen trees, street trees, flowering accent trees, a variety of shrubs, and stormwater treatment planting described below.

4.6 Access

Access to the hotel and ground floor retail would be through a one-way space slip lane on Mission Boulevard and a full access driveway on Torrano Avenue (**Figure 4-3**). The slip lane would include diagonal parking and would allow pedestrians to pull safely off of Mission Boulevard and onto the retail plaza strip along the hotel frontage. Access to the residential portion of the project would be provided via full access driveways on Torrano Avenue and Berry Avenue.

4.7 Parking

The project would meet all applicable parking requirements. Parking for the townhomes would consist of two car garages, tandem parking, and on-street guest parking totaling approximately 305 spaces. The hotel would include a total of approximately 83 surface parking spaces. **Table 1** below presents the proposed parking breakdown.

Table 1
Proposed Parking

Parking Type	Number of Spaces Provided
Condominiums	
Garage	218
Tandem	62
On-Street/Guest	25*
Total	**305**
Hotel	
ADA Accessible Spaces	8
Slip Lane Spaces	14
On-site Spaces	61
Total	**83**

Source: Carlson, Barbee, & Gibson, 2017; MexSal Design Group 2016
**ADA accessible spaces for residences would be provided at a ratio of 0.02 spaces per dwelling unit; thus, three of the on-site/guest spaces would be ADA accessible spaces..*

4.8 Roadway Design and Signage

The proposed project would include caution signage identifying the new project driveway locations on Torrano Avenue and Berry Avenue at the project site. It would also include some traffic control, such as stop or yield signs, at the new driveway on Torrano Avenue, and the northeast corner of the hotel site at the inbound-only driveway.

4.9 Utilities

Water: The City of Hayward currently provides water on-site, and would provide water service to the project. The City of Hayward owns and operates its own water distribution system and purchases all of its water from the San Francisco Public Utilities Commission. All existing on-site utilities currently serving the project site would be removed and new water pipelines would be constructed. Proposed on-site water pipelines would connect to existing water mains located within Torrano Avenue and Berry Avenue.

Wastewater: Wastewater generated on the project site is presently collected by the City of Hayward sanitary sewer system and treated at the City's Water Pollution Control Facility (WPCF). The proposed project would replace all on-site wastewater mains with minimum 8-inch pipelines and would connect to existing 10-inch sanitary sewer mains in Torrano Avenue or Berry Avenue.

Stormwater: The project site is currently served by the Alameda County Water District for storm drainage. The proposed project would include bioretention treatment of all stormwater runoff generated at the project site before entering the public stormwater systems. Stormwater runoff would be directed to multiple bioretention treatment areas throughout the project site that would filter pollutants from stormwater runoff using a combination of vegetation, ponding, permeable planting soil, and a subdrain system. Site runoff would then be directed to the existing 57-inch storm drain on Torrano Avenue, owned by Alameda County Flood Control and Water Conservation District (ACFCWCD). All walkways within the project site would be sloped to drain into the surrounding landscaping and bioretention ponds. Proposed on-site drainage facilities would be private facilities maintained by the homeowners association, and would be constructed to meet all applicable requirements and standards.

Electric and Natural Gas: The project site is currently served by PG&E for purposes of electricity and natural gas. Electricity and natural gas would be provided to the project site through existing PG&E distribution lines. The hotel would include two 150 horse-power diesel-fueled backup generators to provide emergency power for the elevator and emergency lighting. The two generators would be operated for testing and maintenance purposes, for a maximum of 36 hours per year. During testing periods, the engine would typically be run for less than one hour. The engine would be required to meet CARB and U.S. EPA emission standards. The engine would also consume commercially available California low-sulfur diesel fuel.

4.10 Sustainable Features

All project components (residential, retail, and hotel) would include sustainable and energy efficient features and would be required to comply with the 2016 CalGreen Code. The hotel component would include water-conserving faucets and toilets and hotel operations would use local materials where feasible. Energy-efficient features of the hotel component would include rooftop solar energy panels, light-emitting diode (LED) lighting systems, energy-efficient and climate control systems. Energy-efficient features of the residential component would include a solar energy system with up to 2.1 kilowatts per unit. In addition, the townhomes construction would meet the 2016 California's Building Energy Efficiency Standards (Title 24, Part 6) that became effective on January 2017, and would strive, as feasible, to double the required score needed for Green Point Rated. Other sustainable features would

include tank-less water heaters, cool roofs, and electric vehicle charging stations in accordance to the current code implemented at the time of project construction.

Plant material for the proposed project would be chosen for water conserving characteristics with a maximum of 25 percent of non-turf plants requiring moderate irrigation and a minimum of 50 percent of non-turf plants requiring a low to very low irrigation.

A fully automatic irrigation system would be installed for the project that would utilize water conservation methods. Irrigation would be installed throughout the bioretention treatment areas to provide supplemental irrigation in the dry months with reduced irrigation during seasonal rainfall or wet months.

4.11 Project Construction

Construction of the proposed project would be preceded by the demolition of existing buildings on-site. A total of approximately 59,700 square feet of building space and 315,000 square feet of pavement would be demolished. Approximately 30 percent of pavement debris would be utilized on-site. Due to the fact that some areas with potentially contaminated soil could be encountered during project site development activities, approximately 15,000 cubic yards of excavated material (48 percent of total excavated soil) may be disposed appropriately off site. No additional soil materials would be imported.

The townhomes would be built on post tension slab foundations of approximately 8 to 10 inches. The hotel would be built on concrete slab foundation of approximately 8 inches. The depths of excavations at the project site would range between approximately 3 and 7 feet.

Construction of the townhomes is expected to last approximately 24 months beginning in summer 2017 and continuing through summer 2019. Hotel construction would occur simultaneously and last for approximately 19 months, commencing in summer 2017 and ending in early 2019. Construction staging would take place on site.

With the exception to temporary one-lane closure (30 to 60 days) along Mission Street during the construction of the slip lane and the temporary one-lane closure along Torrano Avenue during the connection to the water and wastewater mains, the proposed project would not result in any road closures.

4.12 Proposed Project's Best Management Practices

The proposed project would include the following best management practices:

- The project developer will prepare and implement a Soil Management Plan that outline procedures and protocols for handling potentially impacted soil.

- Before starting demolition and construction activities, the project developer will submit and implement a Debris Recycling Statement to the City.

- During construction, for all mobile diesel-powered off-road equipment larger than 25 hp and operating on the project site for more than two days continuously, the project developer will use Tier 4[3] U.S. EPA compliant engines or equivalent.

- If construction of the proposed project would commence anytime during the nesting/breeding season of native bird species potentially nesting on the project site (typically February through August in the project region), a pre-construction survey of the project site and vicinity for nesting birds will be conducted. The survey will be conducted by a qualified biologist (i.e., experienced with the nesting behavior of bird species of the region) within two weeks prior to the commencement of construction activities. The intent of the survey would be to determine if active nests of special-status bird species or other species protected by the Migratory Bird Treaty Act and/or the California Fish and Game Code are present within the construction zone or within 500 feet of the construction zone. The survey area will include all trees, shrubs, and buildings in the construction zone and a surrounding 500 feet area.

- If active nests are found in areas that would be directly affected or are within 500 feet of construction and would be subject to prolonged construction-related noise, a no-disturbance buffer zone will be created around active nests during the breeding season or until a qualified biologist determines that all young have fledged. The size of the buffer zones and types of construction activities restricted within them will be determined by the qualified biologist taking into account factors such as the following:

    - Noise and human disturbance levels at the construction site at the time of the survey and the noise and disturbance expected during the construction activity.

    - Distance and amount of vegetation or other screening between the construction site and the nest.

    - Sensitivity of individual nesting species and behaviors of the nesting birds.

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3 Tier 4 compliant engines significantly reduce emissions of particulate matter (PM) and oxides of nitrogen (NOx) to near zero levels. Tier 4 compliant engines reduce emissions by over 95 percent for most construction equipment.

- Limits of construction to avoid an active nest will be established on the project site with flagging, fencing, or another appropriate barrier, and construction personnel will be instructed on the sensitivity of nest areas. The existing nests will be removed after nesting has concluded and the nests are vacated (as determined by a qualified biologist).

- Materials containing asbestos and lead paint in the buildings to be demolished will be removed by qualified abatement contractors.

- A licensed lift contractor will remove the hydraulic lifts present on the project site.

- The project developer will submit and implement a work plan to the Hayward Fire Department that describes remedial activities.

- Compaction activities will not be conducted using a vibratory roller within 20 feet of adjacent residences. In such areas, compaction will be performed using smaller hand tampers.

- Demolition, earth-moving, and other ground-impacting operations will use the smallest equipment feasible to complete the work. The use of large bulldozers, hoe rams, drill-rigs will be avoided within 20 feet of the existing adjacent residences.

- Demolition activities will not involve the dropping of heavy objects within 20 feet of adjacent residences.

- Pedestrian pathways within the landscape areas will be sloped to drain towards the adjacent landscaped and bioretention areas.

- Landscaping will be designed to minimize required irrigation and runoff, to promote surface infiltration, and to minimize the use of fertilizers and pesticides that can contribute to stormwater pollution. Where feasible, pest-resistant plants will be selected, especially for locations adjacent to hardscape. Plants will be selected appropriate to site soils, slopes, climate, sun, wind, rain, land use, air movement, ecological consistency, and plant interactions.

- The project developer will prepare and submit, for the City's review, a Stormwater Control Operation and Maintenance Plan prior to the completion of construction, and implement accordingly.

- Bioretention treatment areas will be sized to maximize treatment for tributary areas. Runoff that will be directed into the bioretention areas will infiltrate through a minimum of 18 inch of biotreatment soil (as identified in the Alameda County C.3 Stormwater Technical Guidance

(SWTG)). The treatment soil and the planting material to be used within the bioretention treatment areas will have an infiltration rate of 5 inches per hour to meet the minimum infiltration criteria as described in the SWTG bioretention design and sizing guidelines.

- Each bioretention area will be equipped with a bypass pipe that will direct excess water directly into the drainage system. In all cases, the rim of the overflow pipe will be set to meet the minimum ponding depth requirements for each individual bioretention area.

4.13 City of Hayward Standard Construction Measures

The City of Hayward has established standard construction measures that all developers are required to implement, which will be implemented by the project as a part of condition compliance These consist of the following:

- All diesel powered equipment (≥ 100 horsepower) shall be California Air Resources Board (CARB) Tier 3 Certified or better;
- Unnecessary idling of grading and construction equipment is prohibited;
- All unpaved construction areas shall be sprinkled with water as necessary to reduce dust generation.
- Exposed stockpiles (dirt, sand, etc.) shall be enclosed, covered, watered twice daily or treated with (non-toxic) soil binders;
- Non-toxic soil stabilizers or hydroseed shall be applied to inactive construction areas (previously graded areas inactive for 10-days or more);
- Public streets shall be swept daily if visible soil material is carried onto adjacent public streets;
- The developer shall post the property with signs that shall indicate the names and phone number of individuals who may be contacted, including those of staff at the Bay Area Air Quality Management District, when occupants of adjacent residences find that construction is creating excessive dust or odors, or is otherwise objectionable. Letters shall also be mailed to surrounding property owners and residents with this information prior to commencement of construction;
- Construction debris shall be gathered on a regular basis and placed in a dumpster or other container which is emptied or removed on a weekly basis. When appropriate, tarps shall be used on the ground to collect fallen debris or splatters that could contribute to storm water pollution;

- All dirt, gravel, rubbish, refuse and green waste shall be removed daily from the sidewalk, street pavement, and storm drain system adjoining the project site. Caked on mud or dirt shall be scraped from these areas before sweeping. During wet weather, driving vehicles off paved areas and other outdoor work shall be avoided;

- Filter materials (such as sandbags, filter fabric, etc.) shall be installed at the storm drain inlet nearest the downstream side of the project site prior to: 1) start of the rainy season; 2) site dewatering activities; or 3) street washing activities; and 4) saw cutting asphalt or concrete, or in order to retain any debris or dirt flowing into the City storm drain system. Filter materials shall be maintained and/or replaced as necessary to ensure effectiveness and prevent street flooding. Dispose of filter particles in the trash;

- Storage of bags of cement, paints, flammables, oils, fertilizers, pesticides or any other materials used on the project site that have the potential for being discharged to the storm drain system through being windblown or in the event of a material spill shall be stored in a contained and covered area on the project site;

- Machinery, tools, brushes, etc., shall not be cleaned containers rinsed into a street, gutter, storm drain or stream;

- Concrete/gunite supply trucks or concrete/plasters finishing operations shall not discharge washwater into street gutters or drains;

- The developer shall immediately report any soil or water contamination noticed during construction to the City Fire Department Hazardous Materials Division, the Alameda County Department of Health and the Regional Water Quality Control Board;

- All grading and earth removal work shall follow remediation plan requirements, if soil contamination is found to exist on the site; No site grading shall occur during the rainy season, between October 15 and April 15, unless approved erosion control measures are in place;

- Grading and site construction activities shall be limited to the hours 8:00 AM to 5:00 PM Monday through Friday with no work on weekends and Holidays unless revised hours and days are authorized by the City Engineer. Building construction hours are subject to Building Official's approval;

- Grading and construction equipment shall be properly muffled;

- Stationary noise-generating construction equipment, such as compressors, shall be located as far as practical from occupied residential housing units; and

- Developer shall designate a "noise disturbance coordinator" who will be responsible for responding to any local complaints about construction noise. Letters shall be mailed to surrounding property owners and residents within 300 feet of the project boundary with this information.

4.14 Discretionary approval authority and other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):

The following approvals from the City of Hayward would be required to construct the project:

- Zoning Change
    - Zone Change for a portion of the project site from T4-2 Commercial Overlay Zone 1 to T4-2 Commercial Overlay Zone 2 to allow ground floor residential with a Conditional Use Permit
- Conditional Use Permit
    - Ground floor residential in Commercial Overlay Zone 2
- Administrative Use Permit
    - Hotel (lodging) use in the T4-2 Zone
- Warrants
    - Excess parking provisions
- Vesting Tentative Map 8345
- Tree Removal Permit
- Bay Area Air Quality Management District permit to operate two 150hp emergency backup generators

4.15 Project Consistency with the Specific Plan

The proposed project includes townhomes, a hotel, and retail uses which would be consistent with the land uses permitted and supported by the Specific Plan zoning of the project site. Thus, although the proposed project would require a zoning change for a portion of the project site from T4-2 Commercial Overlay Zone 1 to T4-2 Commercial Overlay Zone 2, to allow ground floor residential with a Conditional

Use Permit, the allowance of ground floor residential would not change the allowed density of residences at the project site. In addition, the proposed project would remain consistent with the intent of the Specific Plan's Sustainable Mixed-Use designation which promotes residential uses to be located near regional transit in walkable urban neighborhoods. The proposed project would also be within the density allowed by the Sustainable Mixed-Use designation (up to 100 dwelling units per acre), as the residential portion of the site would have a density of 14.4 dwelling units per acre and the hotel portion would have a density of 9.6 dwelling units per acre. The residential population and employment growth associated with the proposed project is also within the population and employment estimates presented in the MBCSP FEIR. Furthermore, thoroughfare segments along the perimeter of the project site as shown in the Thoroughfare Plan of the Specific Plan would not be obstructed upon project implementation. Therefore, the proposed project's characteristics including land use, density, population, and planned thoroughfares are within the scope of the previous MBCSP FEIR analysis.

5.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

This Addendum provides an analysis of each environmental issue identified in the MBCSP FEIR to determine whether new or more severe environmental effects would occur from the construction and operation of the proposed project or whether new mitigation measures would be required. CEQA Guidelines Section 15164(a) states that the lead agency shall prepare an addendum to a previously certified EIR if only some technical changes or additions are necessary but none of the conditions described in Section 15162 calling for the preparation of a subsequent or supplemental EIR have occurred. This document evaluates the proposed project to determine whether its impacts are within the scope of the MBCSP FEIR or whether the construction and operation of the proposed project would trigger any as the criteria (described further below), and the necessitate additional environmental review under CEQA Guidelines Section 15162.

In the following evaluation each topic section includes the following sub-sections:

- **Environmental Checklist.** Contains a modified form of the Appendix G Initial Study environmental checklist. Each checklist question has been modified to characterize the potentially significant impact, less-than-significant impact, no impact and other categories in the context of whether or not the project would result in new significant impacts or substantially more severe impacts when compared to the MBCSP FEIR pursuant to Section 15162:

  - Would the project result in substantial changes which would require major revisions of the certified MBCSP FEIR due to new significant environmental effects or a substantial increase in the severity of previously identified effects;

  - Would the project result in substantial changes with respect to the circumstances in which the project is undertaken which would require major revisions of the certified MBCSP FEIR due to

new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

- Would the project have one or more significant effects not discussed in the certified MBCSP FEIR or that would be substantially more severe than the impacts identified in the MBCSP FEIR, or are there mitigation measures or alternatives previously found not to be feasible or that are considerably different, that would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternatives.

The checklist presented in the following analysis classifies impacts in one of four ways:

- **Potentially Significant New Impact**. This category is for any potentially significant impact that was not analyzed in the MBCSP FEIR. A potentially significant impact is an effect that may be significant based on substantial evidence and the significance criteria for the proposed project.

- **Less than Significant New Impact with Mitigation.** This category is for any impacts which were not analyzed or found in the MBCSP FEIR, but are nonetheless found to be less-than-significant with mitigation incorporated. This impact is an effect that with the implementation of project-specific mitigation measures is reduced from potentially significant to a less-than-significant level.

- **Less than Significant New Impact.** This category is for any impacts which were not analyzed or found in the MBCSP FEIR, but which are nonetheless less-than-significant without triggering the need for mitigation.

- **Impacts Fully Analyzed in the FEIR.** This category is for impacts which are equal to or less than the impacts found and analyzed in the MBCSP FEIR.

- **Environmental Checklist Responses.** Provides a response and explanation to each environmental checklist question. This sub-section also identifies mitigation measures that would be necessary to reduce the potential level of impact to a less-than-significant level.

- **Conclusions.** Provides a conclusion as to each checklist question regarding whether the proposed project would result in any new significant impacts or impacts that would be substantially more severe than identified in the MBCSP FEIR according to the Section 15162 triggers listed above.

5.1 Aesthetics

	Potentially Significant New Impact	Less than Significant New Impact with Mitigation	Less than Significant New Impact	Impact Fully Analyzed in the MBCSP FEIR
AESTHETICS - Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☐	☒
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

MBCSF FEIR Conclusions

Scenic Vistas: A scenic vista is generally defined as an expansive view of highly valued landscape or other important scenic features as observable from a publicly accessible vantage point. The only natural open spaces within the Mission Boulevard Corridor are at the base of the hills on the east side of Mission Boulevard. The General Plan directs developments along Mission Boulevard to be of higher-intensity and well-designed quality. The Mission-Foothills Neighborhood Plan, which applies to portions of the Specific Plan area, requires a maximum height of 40 feet with sufficient setback for projects proposed within the plan area on the east side of the Mission Boulevard. The MBCSP FEIR found that the Specific Plan balances the Mission Foothills Neighborhood Plan Policy against the General Plan's direction by implementing the City's Site Plan Review Process as codified under Zoning Regulations §10-1.3000. Based on these factors, the MBCSP FEIR concluded that with the implementation of the Specific Plan policies, development under the Specific Plan would result in a less-than-significant impact related to scenic vistas, and that no mitigation is required.

Scenic Resources: There is no designated scenic roadway within the Mission Boulevard Corridor. A number of large and mature trees protected by the City of Hayward Tree Preservation Ordinance (Municipal Code, Article 15) are located within the Specific Plan area. In addition, the Specific Plan area includes a few buildings that have been determined to be eligible for listing on National, State or Local

registers of historic places and for which the City of Hayward's Historic Preservation Ordinance would apply (although none of these resources are on the project site). Given that the City's Tree Preservation Ordinance and Historic Preservation Ordinance would continue to apply, the MBCSP FEIR concluded that development under the Specific Plan would result in a less-than-significant impact to scenic resources, and that no mitigation is required.

Visual Character: The Specific Plan's Form-Based Code encourages new buildings to front public streets and open parking lots to be placed behind them, within them, or be screened from view. In addition, it encourages new buildings to include a frontage type providing for convenient, attractive pedestrian access and landscaping, and requires that new fences and walls adhere to new aesthetic standards. The MBCSP FEIR found that the combined effect of these new development regulations would improve an existing degraded visual character. The MBCSP FEIR concluded that with the implementation of the City's Site Plan Review process, new development under the Specific Plan would not result in substantial degradation of the existing visual character or quality of the Mission Boulevard Corridor, but instead it would have a positive environmental effect. No mitigation is required.

Light and Glare: The MBCSP FEIR found that although implementation of the Specific Plan would result in increased sources of light and glare, it would not substantially increase the overall ambient light levels in the Mission Boulevard Corridor. Development under the Specific Plan would comply with the Hayward Security Standards Ordinance which requires exterior and parking lot lighting to be designed by a qualified lighting designer and erected and maintained so that light would be confined to the subject property and would not cast direct light or glare on adjacent properties or public rights-of-way. The MBCSP FEIR concluded that the impact associated with light and glare would be less-than-significant, and that no mitigation is required.

Analysis of the Proposed Project

Scenic Vistas: The proposed project would demolish the existing structures on the project site and construct a commercial/residential mixed-use development that would include a hotel and 27 condominium buildings. Construction vehicles and ground disturbance associated with the proposed project would be visible from the surrounding properties and streets. However, these views would be temporary and typical of urbanized areas undergoing redevelopment. As mentioned above, hillside views from the west side of Mission Boulevard are considered scenic, and the Mission-Foothills Neighborhood Plan requires buildings along the east side of Mission Boulevard to be constructed to a maximum height of 40 feet. The project site is not located along the east side of Mission Boulevard, and there are no scenic vistas that would be significantly and adversely affected by the proposed project. The proposed project would be consistent with the Specific Plan requirements and would not result in new or

substantially increased impacts to scenic vistas beyond those discussed in MBCSP FEIR. Therefore, the proposed project would have no significant impact to scenic vistas and no new mitigation is required.

Scenic Resources: There are no designated scenic roadways within the project vicinity. A tree inventory was prepared for the project site on July 29, 2016 (Appendix A). Of the 71 existing trees present on the project site, 46 trees were identified as protected per the City of Hayward Tree Ordinance.[4] The City typically requires all protected trees removed to be replaced with like-size, like-kind trees, or equal-value trees.[5] In cases where like-size, like-kind trees are not available, the City would require the developer to pay for the value of the tree(s) as appraised in the Protected Tree Appraisal Report, in Appendix A. The proposed project would remove up to 42 protected trees and would plant up to 700 trees, throughout the project site. Therefore, the proposed project would comply with the City's Tree Ordinance.

As described in Section 5.5 – Cultural Resources below, there are no buildings on the project site eligible for listing on national, State, or local register of historic places or otherwise considered cultural resources. Thus, similar to the conclusion of the MBCSP FEIR, the proposed project's impact related to scenic resources would be less-than-significant. No new mitigation is required.

Visual Character: The proposed project would demolish existing vacant commercial buildings formerly occupied by a car dealership, a building currently occupied by a used car dealership, a large area of surface parking, and a vacant single-family home. The proposed project would construct new residential buildings and a hotel with ground floor retail. Street trees and ornamental trees would be planted throughout the project site along with landscaped areas. The project frontage along Mission Boulevard would include street trees, evergreen screen trees, and scored concrete paving to provide attractive landscaping. The proposed project would include fences and walls that adhere with new aesthetic City's standards that are defined under the Form-Based Code. **Figure 5.1-1** shows a rendering of the proposed project as viewed from Mission Boulevard. In addition, the proposed project would be subject to the City's Site Plan Review process to ensure that the proposed development would be consistent with the objective-based criteria defined in the Specific Plan and would not degrade the visual character of the project area. Therefore, similar to the conclusion of the MBCSP FEIR, the proposed project's impact on the visual character would remain positive. No new mitigation is required.

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4 Protected trees are defined in Section 10-5.13 as those with a minimum diameter at breast height (DBH) of 8 inches, street trees, memorial trees dedicated by a City-recognized entity, specimen trees that define a neighborhood or community, and those trees planted to replace a protected tree.

5 The value of the original Protected Tree shall be determined using the latest edition of "Guide for Plant Appraisal" by the International Society of Arboriculture. The valuation shall be used to determine the number and size of replacement trees required.





SOURCE: MexSal Design Group, 2017

FIGURE **5.1-1**

IMPACT SCIENCES

View of the Project Site from Mission Boulevard

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Light and Glare: Although new lighting would be included as part of the project, the project site is located in an urban environment that includes existing sources of light and glare on-site and nearby from industrial, warehouse, residential, commercial, and mixed-use land uses. The proposed project would increase the intensity and extent of visibility of the interior lighting at the project site. However, it would be typical of other residential and commercial structures in the project area. Furthermore, the proposed project would be required to comply with the Hayward Security Standards Ordinance[6] which would prevent the casting of light and glare on adjacent properties. Therefore, similar to the conclusion of the MBCSP FEIR, the proposed project's impact associated with light and glare would be less-than-significant. No new mitigation is required.

Cumulative: Cumulative impacts from the projected development in the City of Hayward, including the MBCSP development, are evaluated in the 2040 General Plan EIR. The proposed Mission Crossings project is consistent with the MBCSP and is therefore an element of the growth analyzed in the 2040 General Plan EIR. That EIR concluded that the cumulative impacts related to aesthetics and visual resources would be less than significant. Furthermore, as the analysis above shows, the proposed project's impacts related to visual resources would be less than significant. Therefore, the proposed project would not make a cumulatively considerable contribution to any significant cumulative impact with respect to aesthetics.

Changes in Circumstances and/or Substantial New Information

Since certification of the MBCSP FEIR, there have been no changes in circumstances or substantial new information that would alter the conclusions of the MBCSP FEIR with respect to visual impacts such that additional environmental review would be triggered.

Findings

Because the proposed project is generally consistent with the residential, mixed-use development envisioned under the MBCSP for this area, its potential aesthetic impacts would be similar to or less than the impacts of the land uses and scale of development analyzed in the MBCSP FEIR. Therefore, no new or substantially increased significant aesthetic impacts would result from the proposed project beyond those analyzed in the MBCSP FEIR. No new mitigation is required.

6 Form-Based Code §10-25.260(iii).

5.2 Agriculture and Forestry Resources

	Potentially Significant New Impact	Less than Significant New Impact with Mitigation	Less than Significant New Impact	Impact Fully Analyzed in the MBCSP FEIR
AGRICULTURAL RESOURCES - Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

MBCSP FEIR Conclusions

No impacts to agricultural or forest resources from implementation of the Specific Plan were identified in the MBCSP FEIR. The Specific Plan area is urbanized and is developed with a mixture of residential and commercial buildings. The MBCSP FEIR found that no portion of the plan area is zoned for agricultural use, forest land, timberland, or timber production. In addition, no portion of the plan area supports agricultural operations or is under a Williamson Act contract. There are no agricultural operations on-site or in the immediate vicinity, and no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance has been identified on or in the vicinity of the project site. No portion of the project site contains any forest land for forest uses or timberland. For these reasons, the MBCSP FEIR concluded that implementation of the Specific Plan would result in no impacts to agricultural and forestry resources, and that no mitigation is required.

Analysis of the Proposed Project

The project site is within the urbanized Mission Boulevard Corridor plan area and is paved or landscaped. No Prime Farmland, Unique Farmland, or Farmland of Statewide Importance has been identified on or in the vicinity of the project site. In addition, there are no forest land or forest uses nor any timberland at the project site. Therefore, similar to the conclusion in the MBCSP FEIR, the proposed project would have no impact on agricultural and forestry resources. No new mitigation is required.

Cumulative: No significant impacts on agriculture and forestry resources have been identified in the 2040 General Plan EIR prepared for the projected development within the City of Hayward. Therefore, the proposed project would not make a cumulatively considerable contribution to any significant cumulative impact with respect to agriculture and forestry resources.

Changes in Circumstances and/or Substantial New Information

Since certification of the MBCSP FEIR, there have been no changes in circumstances or substantial new information that would alter the conclusions of the MBCSP FEIR with respect to agricultural or forestry resources such that additional environmental review would be triggered.

Findings

Given the urbanized nature of the project site (which has remained the case since the MBCSP EIR), the potential impacts from the Mission Crossings project on agricultural and forestry resources are essentially the same as those analyzed in the MBCSP FEIR. Therefore, no new or substantially increased significant impacts would result from the proposed project beyond those analyzed in the MBCSP FEIR. No new mitigation is required.

5.3 Air Quality

	Potentially Significant New Impact	Less than Significant New Impact with Mitigation	Less than Significant New Impact	Impacts Fully Analyzed in the MBCSP FEIR
AIR QUALITY - Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒

	Potentially Significant New Impact	Less than Significant New Impact with Mitigation	Less than Significant New Impact	Impacts Fully Analyzed in the MBCSP FEIR
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☐	☒
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?	☐	☐	☐	☒
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒

MBCSP FEIR Conclusions

Conflict with Clean Air Plan: The MBSCP FEIR found that implementation of the Specific Plan would facilitate increased use of transit and provide a mix of land uses to encourage walking. Also, it would encourage urban infill mixed-use development with access to local and regional transit. Therefore, the MBCSP concluded that it would contribute to decreased vehicle trips and reduced vehicle emissions, and thereby support the 2010 Clean Air Plan ("CAP") goals for improving air quality and protecting public health. Furthermore, as implementation of the Specific Plan would increase pedestrian, bicycle and transit usage, the MBCSP FEIR found that projected vehicle miles traveled (VMT) or vehicle trips increase would be less than or equal to the projected population increase. The MBCSP FEIR found that project implementation would support the goals of the CAP, include applicable control measures, and would not disrupt or hinder implementation of any CAP control measures. The MBCSP FEIR concluded that the impact of the development under the Specific Plan related to conflict with the CAP would be less-than-significant, and that no mitigation is required.

Sensitive Receptors and TACs: According to BAAQMD's *Stationary Source Risk & Hazard Analysis Tool*, the MBCSP FEIR noted that 30 permitted stationary sources of TACs are located within the Specific Plan area or within 1,000 feet of it. Over half of these sources have non-cancer hazard indexes below 1 and PM2.5 concentrations below 0.3 ug/m^3. Additionally, although half of these sources also have a cancer risk

generally below one in a million, nine of these stationary sources are known to be above the threshold level for cancer risks.

Sensitive receptors in the Specific Plan area could be exposed to increased health risks from vehicle emissions from Mission Boulevard. The MBCSP FEIR noted that Mission Boulevard is an urban roadway with an annual average daily traffic (AADT) of approximately 139,000 vehicles/day south of the junction with W. Jackson Street and Foothill Boulevard and 18,800 vehicles/day north of that point.

Therefore, the California Air Resources Board's (CARB's) siting recommendations would be applicable to the southern portion of the plan area near the project site. The BAAQMD recommends "Highway Overlay Zone" for plans with existing or planned sources of toxic air contaminants (TACs) in proximity to sensitive uses. The MBCSP FEIR found that potential for increased health risks for sensitive receptors located near high volume roadways and existing stationary sources of TACs would be reduced with implementation of **MBCSP FEIR Mitigation Measure Air-2,** which requires the application of BAAQMD recommended "Highway Overlay Zone to the affected portion of the plan area. The MBCSP FEIR concluded that the impact of development under the Specific Plan on sensitive receptors would be less-than-significant with mitigation incorporated.

MBCSP FEIR Mitigation Measure

Air-2a: **Highway Overlay Zone.** The project shall include an overlay zone extending five-hundred (500) feet from Mission Boulevard and W. Jackson Street. Future development projects within that overlay zone shall adhere to the indoor and exterior air quality measures below.

Indoor Air Quality:

In accordance with the recommendations of the California Air Resources Board (CARB) and the Bay Area Air Quality Management District (BAAQMD), measures shall be incorporated into the project design in order to reduce the potential health risk due to exposure to diesel particulate matter to achieve an acceptable interior air quality level for sensitive receptors. The measures shall include one of the following methods:

(a) Development project applicants shall implement all of the following features that have been found to reduce the air quality risk to sensitive receptors and shall be included in the project construction plans. These features shall be submitted to the Development Services Department for review and approval prior to the issuance of a demolition,

grading, or building permit and shall be maintained on an ongoing basis during operation of the project.

For sensitive uses (residences, schools, day care centers, playgrounds, and medical facilities) sited within an overlay zone, the applicant shall install, operate and maintain in good working order a central heating and ventilation (HV) system or other air intake system in the building, or in each individual unit, that meets or exceeds an efficiency standard of MERV 13. The HV system shall include the following features: Installation of a high efficiency filter and/or carbon filter to filter particulates and other chemical matter from entering the building. Either HEPA filters or ASHRAE 85% supply filters shall be used.

Project applicants shall maintain, repair and/or replace HV system on an ongoing and as needed basis or shall prepare an operation and maintenance manual for the HV system and the filter. The manual shall include the operating instructions and the maintenance and replacement schedule. This manual shall be included in the CC&Rs for residential projects and/or distributed to the building maintenance staff. In addition, the applicant shall prepare a separate homeowners manual. The manual shall contain the operating instructions and the maintenance and replacement schedule for the HV system and the filters.

(b) Alternative to (a) above, a project applicant proposing siting of sensitive uses (residences, schools, day care centers, playgrounds, and medical facilities) within an overlay zone shall retain a qualified air quality consultant to prepare a health risk assessment (HRA) in accordance with CARB and the Office of Environmental Health and Hazard Assessment requirements to determine the exposure of project residents/occupants/users to air polluters prior to issuance of a demolition, grading, or building permit. The HRA shall be submitted to the Development Services Department for review and approval. The applicant shall implement the approved HRA recommendations, if any. If the HRA concludes that the air quality risks from nearby sources are at or below acceptable levels, then measures outlined under item (a) are not required.

<u>Exterior Air Quality:</u>

(c) To the maximum extent practicable, individual and common exterior open space proposed as a part of developments in the project area, including playgrounds, patios,

and decks, shall either be shielded from the source of air pollution by buildings or otherwise buffered to further reduce air pollution for project occupants.

(d) Alternative to (c) above, an HRA could be prepared and implemented to take into account the risk specifics of the site, as more fully described in item (b) above.

Air-2b: **Toxic Air Contaminants – Stationary Sources.** The location and potential air contaminants associated with stationary sources present at the time of this EIR's preparation may change over time. Similarly, new stationary sources may be established. Therefore, this mitigation measure provides a dynamic buffer zone to ensure toxic air contaminants from all existing and future stationary sources do not result in unacceptable health risks.

The provisions below shall apply to all future development under the project occurring within five-hundred (500) feet of any stationary source, existing at the time of EIR preparation or subsequently established, and which exceeds the applicable BAAQMD individual source or cumulative threshold:

(a) All new development proposals shall be evaluated to determine whether they are within five-hundred (500) feet of a stationary source exceeding the thresholds cited above.

(b) Development proposals located within the five-hundred (500) foot radius of a stationary source exceeding threshold shall adhere to the indoor and exterior air quality measures of Mitigation Measure Air-2, including the option to complete a HRA.

Analysis of the Proposed Project

Although the proposed project would be consistent with the Specific Plan projected development, air emissions that would result during project's construction and operation were calculated and presented in this analysis.

Conflict with an Applicable Air Quality Plan: The project site is located in Alameda County which is in the San Francisco Bay Area Air Basin. The project site is in an area currently designated nonattainment for the state 1-hour and 8-hour ozone standards, nonattainment for the state 24-hour and annual PM10 standards, and nonattainment for the state annual PM2.5 standard. It is also designated as nonattainment for the national 8-hour ozone standard and nonattainment for the national 24-hour PM2.5 standard. To meet planning requirements related to these standards, the BAAQMD has developed a regional air

quality plan, the Bay Area 2010 CAP. A significant impact would occur if a project conflicted with the CAP by not being consistent with the population-growth and vehicle miles traveled assumptions of the CAP.

As described above in **Section 4.15**, **Project Consistency with the Specific Plan,** the proposed project's land use, density, and planned thoroughfares would be consistent with the Specific Plan projected development. The MBCSP FEIR analysis found that development of the plan area under the Specific Plan would not conflict with the Bay Area's CAP since the projected traffic growth would be less than projected population growth and the Specific Plan supports the goals of the CAP. Mixed-use, transit-oriented growth, such as the proposed project, would generate fewer trips than growth elsewhere without these characteristics; thereby, supporting the goal to balance trip growth with population growth. As mentioned above, the Specific Plan was also found to support the goals of the CAP, including applicable control measures. The proposed project is consistent with and part of the Specific Plan, and therefore, it would not conflict with the CAP. Similar to the conclusions of the MBCSP FEIR, the proposed project would not conflict with or obstruct implementation of the CAP, and this impact would be less-than-significant. No new mitigation is required.

Criteria Pollutants:

Construction Emissions

The California Emissions Estimator Model (CalEEMod) version 2016.3.1 was used to estimate construction emissions for the proposed project. The construction period was assumed to span over a period of approximately 24 months, from summer 2017 into summer 2019.[7] On-site construction emission sources would primarily include grading and construction equipment, while off-site sources would include construction worker, hauling, and vendor traffic. A construction build-out scenario, including anticipated equipment list and schedule by phase, was provided by the project developer. Additional project construction assumptions that were input into CalEEMod to estimate construction emissions are detailed in **Appendix A**. The average daily and annual construction emissions are summarized in **Table 2.**

7 The construction emissions have been computed in phases. The first phase involves demolition, site preparation, grading and trenching which would occur over the entire project site. No structures would be built during this phase.

Table 2
Construction Period Criteria Air Pollutant Emissions

Scenario	ROG	NOx	PM10	PM2.5
Emissions During Site Work (tons)	0.06	1.29	0.01	0.01
Emissions During Residential Retail Construction (tons)	1.02	1.47	0.01	0.01
Emissions During Hotel Construction (tons)	0.82	0.93	0.01	0.01
Total Construction Emissions (tons)	**1.90**	**3.69**	**0.03**	**0.03**
Average Daily Emissions (pounds)[1]	7.3	14.2	0.01	0.01
Thresholds (pounds per day)	54	54	82	54
Exceeds Threshold?	***No***	***No***	***No***	***No***

Source: Illingworth and Rodkin, 2017.
[1] *Assumes ~520 workdays.*
PM10 and PM2.5 totals are for exhaust.

As shown in **Table 2**, estimated average daily project construction emissions would not exceed the thresholds for ROG, NOx, PM10, and PM2.5. As a result, the impact associated with construction period emissions of criteria pollutants would be less-than-significant. No new mitigation is required.

However, construction activities, particularly during demolition, site preparation and grading, would temporarily generate fugitive dust in the form of PM10 and PM2.5. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after it dries. The BAAQMD CEQA Air Quality Guidelines consider the impact associated with fugitive dust emissions to be less-than-significant if best management practices (BMPs) are implemented to reduce these emissions. The City requires the project to implement a set of construction-related practices that are consistent with the basic control measures recommended by BAAQMD and considered best practices. In addition, as noted in **4.12, Proposed Project's Best Management Practices**, the project developer would use Tier 4 U.S. EPA compliant engines or equivalent for all mobile diesel-powered off-road equipment larger than 25 hp and operating on the site for more than two days continuously. With the implementation of the City's standard construction practices and the project's best management practices, the impact related to fugitive dust emissions would be less-than-significant and no new mitigation is required.

Operational Emissions

CalEEMod was used to estimate operational emissions for the proposed project. Project operational assumptions that were input into CalEEMod to estimate operational emissions are detailed in **Appendix A**. Operational air emissions from the proposed project would be generated primarily from autos driven by future residents, hotel guests/retail users, and employees. Additional typical emissions from these types of uses include evaporative emissions from architectural coatings and maintenance products (classified as consumer products). The only stationary sources of air pollutants associated with the proposed project would be two diesel-fueled emergency back-up generators, each having a power rating of 150hp (112 KW) that would be installed in the hotel. The emergency back-up generators would provide backup power in emergency conditions. As mentioned above in **Section 4.9, Utilities**, as required by BAAQMD, the generators would be operated for testing and maintenance purposes, for a maximum of 36 hours per year. During testing periods, the engine would typically be run for less than one hour. The engine would be required to meet CARB and U.S. EPA emission standards. The engine would also consume commercially available California low-sulfur diesel fuel.

The earliest full year that the project would be constructed and fully occupied would be 2020. **Table 3** below reports the predicted operational emissions of the proposed project, in terms of annual emissions in tons and average daily operational emissions in pounds per day, assuming 365 days of operation per year.

Table 3
Operational Criteria Pollutant Emissions

	Estimated Emissions			
Emissions Source	**ROG**	**NOx**	**PM10 Exhaust**	**PM2.5 Exhaust**
Annual Hotel Emissions *(in tons)*	1.08	2.82	0.84	0.25
Annual Residential Retail Emissions *(in tons)*	0.91	2.04	0.76	0.23
Total Annual Project Emissions *(in tons)*	1.99	4.86	1.60	0.48
Annual Thresholds (in tons/yr)	*10*	*10*	*15*	*10*
Exceeds Threshold?	***No***	***No***	***No***	***No***
Average Daily Emissions (lbs./day)[1]	10.9	13.31	8.8	2.6
Daily Thresholds (in lbs.)	*54*	*54*	*82*	*54*
Exceeds Threshold?	***No***	***No***	***No***	***No***

Source: Illingworth and Rodkin, 2017
[1] - Assumes 365-day operation.

As shown in **Table 3**, average daily and annual emissions of ROG, NOx, PM10, or PM2.5 emissions associated with operation would not exceed the significance thresholds. Thus, the proposed project would have a less-than-significant impact associated with operational period criteria pollutant emissions. No new mitigation is required.

Violate Air Quality Standards: As shown above in **Table 2** and **Table 3**, the project's ozone precursor and particulate matter emissions, both during construction and upon occupancy and operation, would be well below the BAAQMD's thresholds. The BAAQMD thresholds are designed to assist the Bay Area air basin attain and maintain ambient air quality standards. Projects that result in emissions below the BAAQMD thresholds are considered not to contribute substantially to existing or projected violations of the air quality standards.

Carbon monoxide (CO) emissions from traffic generated by the project would be the pollutant of greatest concern at the local level. Congested intersections with a large volume of traffic have the greatest potential to cause high-localized concentrations of carbon monoxide. Air pollutant monitoring data indicate that carbon monoxide levels have been at healthy levels (i.e., below State and federal standards) in the Bay Area since the early 1990s. As a result, the region has been designated as attainment for the CO standard. The highest measured level of CO over any 8-hour averaging period during the last three years in the Bay Area is less than 3.0 parts per million (ppm), compared to the ambient air quality standard of 9.0 ppm. Intersections significantly impacted by the project would have traffic volumes less than the BAAQMD screening criteria of 44,000 vehicles per hour per intersection. Therefore, the proposed project would not cause a violation of the ambient air quality standard or contribute substantially to an existing or projected violation of the air quality standard for CO. This impact would be less-than-significant and no new mitigation is required.

Expose New On-site Sensitive Receptors to Substantial Pollutant Concentrations:

The proposed project would introduce new sensitive receptors to the area in the form of future residences. The hotel would not introduce new sensitive receptors because of temporary and short-term natures of its use. In *California Building Industry Association v. Bay Area Air Quality Management District*, the court held that "agencies subject to CEQA generally are not required to analyze the impact of existing conditions on a project's future users or residents. But when a proposed project risks exacerbating those environmental conditions that already exist, an agency must analyze the potential impacts of such hazards on future residents or users. In those special circumstances, it is the project's impact on the environment – and not the environment's impact on the project – that compels an evaluation of how future users or residents could be affected by exacerbated conditions." Here, there are no such special circumstances. Nevertheless, for informational purposes, in the case of the proposed project, such an

analysis is included in this addendum for two reasons: the proposed project includes two emergency generators which would add to TAC emissions emitted in the area and potentially exacerbate any existing human health risk that the project site receptors could be exposed to. Secondly, as noted above, the **MBCSP FEIR Mitigation Measure Air-2** requires that either future residential receptors within 500 feet of Mission Boulevard or other stationary sources be protected from indoor exposure to high levels of TACs by incorporating appropriate design features and controls, or that an HRA be prepared to demonstrate that such controls are not needed. An analysis of the potential for the proposed project to expose future project site receptors to excessive human health risk impacts is evaluated below.

A review of the project site and vicinity identified Mission Boulevard as the only significant source of mobile TAC emissions. No freight train activity is associated with the railroad line that runs along the western boundary of the project site. Therefore, the rail line is not a source of mobile TAC emissions. A review of BAAQMD's *Stationary Source Risk & Hazard Analysis Tool* used to identify stationary sources revealed only one stationary source with the potential to significantly affect the project site; this off-site source is an emergency generator located at 25225 Mission Boulevard.[8] Additionally, it is anticipated that the proposed project would include two emergency back-up generators, located in the ground floor mechanical room situated at the back end of the hotel nearest to the proposed urban farm. However, the generators would primarily be operated for testing and emergency purposes. Community risk impacts from these sources on the project receptors are reported in **Table 4**.

Table 4
Community Risk Impacts to Project Sensitive Receptors

Sources[1]	Lifetime Excess Cancer Risk (per million)	Annual PM2.5 ($\mu g/m^3$)[2]	Hazard Index
Mission Boulevard at 240 feet	<1.3	<0.1	<0.01
Plant G10686, Emergency Generator, Arco (facility #09536), Diesel Internal Combustion Engine Multiplier	<5.3	NA	<0.01
Emergency Generators	8.8	<0.1	<0.01
Single Source Maximum	**8.8**	**<0.1**	**<0.01**
Threshold – Single Source	>10	>0.3	>1.0
Exceeds Threshold?	**No**	**No**	**No**
Cumulative Total*	<15.4	<0.2	<0.03
Threshold – Cumulative Sources	**>100**	**>0.8**	**>10.0**

Threshold – Cumulative Sources

8 Other sources including Wilma's Collision Repair located at 25571 Dollar Street, TKO Collision Repair at 25401 Mission Boulevard, Hayward Autobody Shop, Inc. at 25087 Mission Boulevard and Shanklin's Body Shop at 25486 Mission Boulevard were all found to have zero risks associated with them.

Sources[1]		Lifetime Excess Cancer Risk (per million)	Annual PM2.5 (μg/m³)[2]	Hazard Index
	Exceeds Threshold?	***No***	***No***	***No***

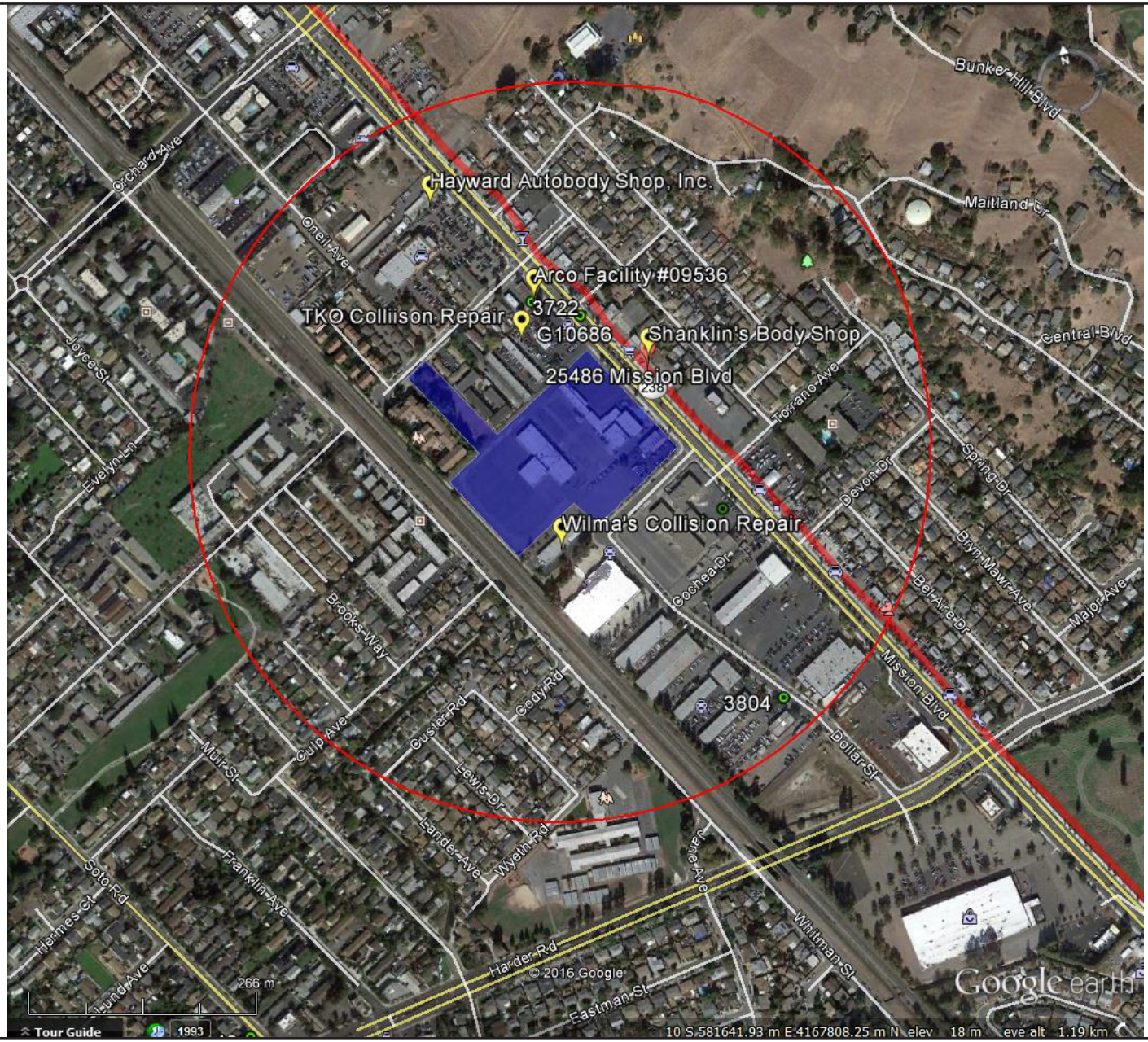
Source: Illingworth and Rodkin, 2017
NA Not Available
Note: Since screening risk is predicted at the nearest point on the project site from a given source, actual screening risk at the project MEI would be less than presented for the cumulative total.
*[1] Other sources including Wilma's Collision Repair located at 25571 Dollar Street, TKO Collision Repair at 25401 Mission Boulevard, Hayward Autobody Shop, Inc. at 25087 Mission Boulevard and Shanklin's Body Shop at 25486 Mission Boulevard (see **Figure 5.3-1**) were all identified using the BAAQMD's Stationary Source Risk & Hazard Analysis Tool to have zero cancer risks associated with them.*
[2] The cumulative total has been calculated based on estimated risk values at the closest project point to each source as a conservative measure; actual cumulative risk at any given point on the site would be expected to be less.

Mission Boulevard

In the vicinity of the project site, Mission Boulevard has approximately 35,305 average daily trips (ADT). Traffic information reported by Caltrans indicates that Mission Boulevard traffic includes about 3.5 percent trucks, of which 1.8 percent are considered heavy duty trucks and 1.7 percent are medium duty trucks. As shown in **Table 4**, the maximum increased cancer risk from traffic at sensitive receptors was computed as 1.3 in one million at the project maximally exposed individual (MEI), which was modeled at the eastern portion of the project site closest to Mission Boulevard. The maximum cancer risk at the project site is below the threshold of greater than 10 in one million excess cancer cases per million. For non-cancer health effects from diesel particulate matter (DPM), a chronic Hazard Index (HI) of < 0.01 was computed based on a maximum DPM concentration of 0.0016 μg/m³. This HI is well below the HI threshold of greater than 1.0. The model predicted the maximum annual PM2.5 concentration from Mission Boulevard traffic 0.08 μg/m³ (i.e., less than 0.1 μg/m³), which would occur at the same residential receptor that had the maximum cancer risk in the eastern portion of the project residential area. The maximum annual PM2.5 concentration does not exceed the PM2.5 threshold of greater than 0.3 μg/m³.

Off-site Stationary Sources

Plant G10686, which is the emergency generator located at 25225 Mission Boulevard operated by Arco (facility #09536), is approximately 335 feet north of the nearest project site sensitive receptor. Other sources including Wilma's Collision Repair located at 25571 Dollar Street, TKO Collision Repair at 25401 Mission Boulevard, Hayward Autobody Shop, Inc. at 25087 Mission Boulevard and Shanklin's Body Shop at 25486 Mission Boulevard were all found to have zero risks associated with them. The locations of the stationary sources with respect to the project site are shown in **Figure 5.3-1**. At BAAQMD's direction, risk and PM2.5 concentrations from Plant G10686, which is the emergency generator located at 25225 Mission Boulevard operated by Arco facility (facility # 09536) were adjusted based on BAAQMD's *Distance*



SOURCE: Illingworth and Rodkin, 2017

FIGURE **5.3-1**

IMPACT SCIENCES

Off-Site Stationary Sources

Adjustment Multiplier Tool for Gasoline Dispensing Facilities. According to the BAAQMD screening data (and adjusted for the 335-foot distance and 2015 OEHHA methodology)[9], this facility would result in an adjusted adult cancer risk of 5.3 per million, HI of less 0.01, and no PM2.5 concentration at the northwestern border of the project site, all of which would be below thresholds of significance. Since the project MEI is located at a greater distance from the source, the risks at this location would be lower.

On-site Source-Project Generators

As previously described, the proposed hotel project would include two emergency back-up generators driven by diesel-fueled engine. For calculating risks associated with generator emissions, emissions from the testing and maintenance of the generators were calculated using CalEEMod. Results indicate average daily emissions of about 0.01 pounds of DPM per day. Risk and PM2.5 concentrations from two diesel generators of the proposed size were then calculated based on *BAAQMD's Risk and Hazards Emissions Screening Calculator (Beta Version).* Results indicate that the project generators would result in an excess cancer risk of 8.8 per million, PM2.5 concentration of less than 0.1 $\mu g/m^3$ and HI of <0.01, all of which would be below thresholds of significance at nearby on-site sensitive receptors.

Cumulative Sources

Cumulative TAC impacts are assessed by predicting the combined community risk impacts to the project receptors from nearby sources, including, among others, Mission Boulevard, the emergency generator operated by Arco facility, and the two generators that would be installed as part of the proposed project. **Table 4** above reports the combination of impacts from all sources within 1,000 feet of the project site. As shown in **Table 4**, community risk impacts to the new project residents would be below the threshold for cumulative sources.

Therefore, TAC impacts on on-site sensitive receptors associated with the proposed project would be less-than-significant. No new mitigation is required.

Expose Existing Off-site Receptors to Substantial Pollutant Concentrations:

Construction Emissions

Construction period emissions were computed using CalEEMod along with projected construction activity, as described above. As described in the project description, the project incorporates the City's standard set of construction related conditions, which also reduce construction period exhaust emissions

9 The 2011 screening values obtained from the Google Earth tool were adjusted using the OEHHA adjustment factor of 1.3744.8.

from on-site construction activity. The reductions in emissions from these standard conditions were included in the project construction emission modeling. The CalEEMod model provided total annual PM_{10} exhaust emissions (assumed to be DPM) from the off-road construction equipment used for construction of the project and from on-road vehicles (haul trucks, vendor trucks, and worker vehicles) of 0.0135 tons (27 pounds) over the approximate 24-month construction period. A trip length of one-half mile was used to represent vehicle travel while at or near the construction site. For modeling purposes, it was assumed that these emissions from on-road vehicles would occur at the construction site. Fugitive dust PM2.5 emissions were also computed and included in this analysis. The model estimates emissions of 0.0826 tons of fugitive PM2.5 (165 pounds).

As shown below in **Table 5** the maximum increased residential cancer risk would occur at the second floor level of a nearby multi-family residential apartment and would be 2.5 in one million for an infant/child exposure and 0.05 in one million for an adult exposure. The maximum residential excess cancer risk would not exceed the significance threshold of 10 in one million. The cancer risk at the maximally exposed school receptor was computed at 0.2 in one million for child exposure, and would also not exceed the significance thresholds.

The maximum-modeled annual PM2.5 concentration, which is based on combined exhaust and fugitive dust emissions, was computed as 0.08 $\mu g/m^3$. This maximum annual PM2.5 concentration would not exceed the significance threshold of 0.3 $\mu g/m^3$. The maximum annual PM2.5 concentration at the maximally exposed school receptor was computed to be 0.02 $\mu g/m^3$, and would also not exceed the significance threshold.

The maximum modeled annual residential DPM concentration (i.e., from construction exhaust) was computed to be 0.0075 $\mu g/m^3$. The maximum computed HI based on this DPM concentration is 0.001, which is much lower than the significance criterion of a HI greater than 1.0.

The cumulative impacts of TAC emissions from construction of the proposed project, nearby stationary sources and traffic on SR-238 (Mission Boulevard) on the construction off-site MEI are summarized in **Table 5**.

Table 5
Impact at the Construction MEI from Combined Sources

Source	Maximum Cancer Risk (per million)	Maximum Annual PM2.5 Concentration (μg/m3)	Maximum Hazard Index

Source	Maximum Cancer Risk (per million)	Maximum Annual PM2.5 Concentration (µg/m3)	Maximum Hazard Index
Unmitigated project construction	2.5	<0.1	<0.01
Plant G10686, Arco (Facility #09536) at ~ 475 ft*	0.3	--	<0.01
Mission Boulevard	<1.3	<0.1	<0.01
Project Generators	1.8	0.0	<0.01
Cumulative Total	<5.9	<0.2	<0.04
Threshold – Cumulative Sources	***>100***	***>0.8***	***>10.0***
Exceeds Threshold?	***No***	***No***	***No***

Source: Illingworth and Rodkin, 2017

*Other sources including Wilma's Collision Repair located at 25571 Dollar Street, TKO Collision Repair at 25401 Mission Boulevard, Hayward Autobody Shop, Inc. at 25087 Mission Boulevard and Shanklin's Body Shop at 25486 Mission Boulevard were all identified using the BAAQMD's Stationary Source Risk & Hazard Analysis Tool to have zero cancer risks associated with them.

As shown in **Table 5**, the sum of impacts from combined sources at the off-site construction MEI would be below the thresholds of significance. Therefore, TAC impacts of the project construction on off-site sensitive receptors would be less-than-significant. No new mitigation is required.

Operational Emissions

As previously described, two 150 hp back-up generators driven by diesel fueled engines would be associated with the proposed hotel. The generators would be operated for testing and maintenance purposes, with a maximum of 36 hours per year of non-emergency operation under normal conditions. During testing periods the engine would typically be run for less than one hour under light engine loads. For calculating risks associated with generator emissions at the off-site MEI, emissions from the testing and maintenance of the generators were calculated. Results of generator modeling indicate average daily emissions of about 0.01 pounds of DPM per day. Risk and PM2.5 concentrations from two diesel generators of the proposed size were then calculated based on BAAQMD's *Risk and Hazards Emissions Screening Calculator (Beta Version).* Results indicate that the project generators would result in an excess cancer risk of 1.8 per million at the operational off-site MEI, PM2.5 concentration of less than 0.01 $\mu g/m^{3,}$ and HI of <0.01, all of which would be below thresholds of significance. Therefore, this impact on nearby off-site sensitive receptors would be considered less-than-significant. No new mitigation is required.

Cumulative impacts of TAC emissions from testing and maintenance of the project generators, Plant G10686, and traffic on Mission Boulevard on the operational MEI are summarized in **Table 6** below.

Table 6
Impact at the Operational MEI from Combined Sources

Source	Maximum Cancer Risk (per million)	Maximum Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)	Maximum Hazard Index
Project Generators	1.8	<0.01	<0.01
Plant G10686, Arco (Facility #09536) at ~ 475 ft*	0.3	--	<0.01
Mission Boulevard	<1.3	<0.1	<0.01
Cumulative Total	**<3.4**	**<0.2**	**<0.03**
Threshold – Cumulative Sources	*>100*	*>0.8*	*>10.0*
Exceeds Threshold?	***No***	***No***	***No***

Source: Illingworth and Rodkin, 2017
*Other sources including Wilma's Collision Repair located at 25571 Dollar Street, TKO Collision Repair at 25401 Mission Boulevard, Hayward Autobody Shop, Inc. at 25087 Mission Boulevard and Shanklin's Body Shop at 25486 Mission Boulevard were all identified using the BAAQMD's Stationary Source Risk & Hazard Analysis Tool to have zero cancer risks associated with them.

As shown in **Table 6**, the sum of impacts from combined sources at the operational off-site MEI would be below the thresholds of significance. Therefore, TAC impacts on off-site sensitive receptors associated with project operations would be less-than-significant. No new mitigation is required.

Odors: The proposed project would generate localized emissions of diesel exhaust during construction equipment operation and truck activity. These emissions may be noticeable from time to time by adjacent receptors. However, they would be localized, typical of construction activities in urbanized areas undergoing redevelopment, and would not adversely affect people off site. Once operational, the proposed project would not include any sources of significant odors that would cause complaints from surrounding uses, given its proposed uses (residential, hotel, retail). This would be a less-than-significant impact and no new mitigation is required.

Cumulative: The cumulative air quality impacts of the proposed project are adequately addressed in the analysis above. As the analysis of the proposed project's emissions of criteria pollutants shows, both during construction and operations, the project emissions would not exceed the applicable thresholds set forth by the BAAQMD and utilized by the city. Any project that results in emissions that are less than the thresholds would not result in a significant cumulative impact on the regional air quality in the Bay Area.

With respect to impacts related to TACs, the analyses presented above include a cumulative impact analysis that takes into account all existing and projected sources of TACs. As that analysis shows, the

cumulative impacts on project site receptors as well as existing nearby receptors would be less than significant.

Changes in Circumstances and/or Substantial New Information

Since certification of the MBCSP FEIR, there have been no changes in circumstances or substantial new information that would alter the conclusions of the MBCSP FEIR with respect to air quality impacts such that additional environmental review would be triggered.

The BAAQMD *CEQA Air Quality Guidelines* set forth quantitative thresholds for determining the significance of a project's air quality impacts under the general criteria set forth by CEQA. The significance thresholds in the BAAQMD's *CEQA Air Quality Guidelines* were challenged by the California Building Industry Association. A March 2012 Alameda County Superior Court judgment determined that the BAAQMD had failed to evaluate the environmental impacts of the land use development patterns that would result from adoption of the thresholds and ordered the thresholds set aside. Although the Court of Appeal reversed that judgment, the California Supreme Court subsequently reviewed the limited issue of whether CEQA requires an analysis of the environment's impact on a project, and ruled that CEQA does not require an analysis of the environment's impact on the project except to the extent that special circumstances exist where project impacts exacerbate pre-existing environmental conditions. The decision was remanded to the Court of Appeal. On August 12, 2016, the Appellate Court ruled that the receptor thresholds cannot be used by a lead agency to require an EIR or to impose mitigation measures solely because the occupants or users of a new project would be subjected to contaminant levels above the Air District's thresholds. As the litigation is not fully resolved, the BAAQMD currently does not recommend any specific threshold. Instead, the BAAQMD states that the lead agency will need to determine appropriate air quality thresholds of significance based on substantial evidence in the record.

The Court did not rule on or question the adequacy of the evidentiary basis supporting the significance thresholds that are contained in the *CEQA Air Quality Guidelines* and the BAAQMD-recommended impact assessment methodologies. Therefore, a lead agency has the discretion to use the significance thresholds and methodology for analyzing air quality impacts under CEQA based on the evidence and technical studies supporting the guidelines. The City of Hayward has consistently utilized the methodologies and thresholds in the *CEQA Air Quality Guidelines* in its environmental documents, including the MBCSP FEIR and this addendum, and has determined that the analysis and conclusions in the MBCSP FEIR and this addendum accurately reflect the air quality impacts of MBCSP implementation, including the proposed project.

Findings

The potential air quality impacts of the proposed project would be less-than-significant and would not increase the severity of the previously reported air quality impacts in the MBCSP FEIR. The potential air quality impacts of the proposed project are adequately analyzed in the MBCSP FEIR. No new or substantially increased significant impacts would result from the proposed project beyond those analyzed in the MBCSP FEIR. No new mitigation is required.

5.4 Biological Resources

	Potentially Significant Impact	Less than Significant New Impact with Mitigation	Less than Significant New Impact	Impacts Fully Analyzed in the MBCSP FEIR
BIOLOGICAL RESOURCES - Would the project:				
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 Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
b) 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?	☐	☐	☐	☒
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially 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?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat	☐	☐	☐	☒

	Potentially Significant Impact	Less than Significant New Impact with Mitigation	Less than Significant New Impact	Impacts Fully Analyzed in the MBCSP FEIR
Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				

MBCSP FEIR Conclusions

Habitat Modifications: The MBCSP FEIR found that existing habitats in the Specific Plan area, generally including developed/landscaped, agricultural/ruderal grassland, and ornamental woodland habitats, would be altered and/or reduced with implementation of the Specific Plan. However, these habitat types are relatively abundant and widespread regionally, and none of these habitats represent particularly sensitive, valuable (from the perspective of providing important plant or wildlife habitat), or exemplary occurrences of these habitat types. The MBCSP FEIR concluded that implementation of the Specific Plan would have a less-than-significant impact on habitat modifications. No mitigation is required.

Special Status Species/Habitats:

Golden Eagle: The MBCSP FEIR noted that use of equipment within the Specific Plan area for future construction projects may occur near golden eagles nests. However, the golden eagle is not expected to occur frequently or in large numbers, or to nest within the Specific Plan area. The MBCSP FEIR also noted that future developments associated with the Specific Plan could remove potential foraging habitat for the golden eagle. The MBCSP FEIR found that future construction projects would not result in injury or mortality of any individuals of this species, which are mobile enough to avoid construction equipment. It also found that the Specific Plan area primarily includes already developed and/or heavily impacted areas. The MBCSP FEIR concluded that implementation of the Specific Plan would result in a less-than-significant impact on golden eagles. No mitigation is required.

Pallid Bat: Based on surveys conducted as part of the MBCSP FEIR, one record of a pallid bat was reported in the immediate vicinity of the Specific Plan area. The MBCSP FEIR noted that future construction projects within the Specific Plan area that include tree removal and/or building demolition could adversely impact pallid bat roosts. However, measures would be implemented to avoid impacts on pallid bats (see **MBCSP FEIR Mitigation Measures Bio-3a** through **Bio-3d**). Given that impacts on pallid bats would be avoided and minimized through the implementation of mitigation measures, the MBCSP FEIR concluded that implementation of the Specific Plan would result in a less-than-significant impact on pallid bats with mitigation incorporated.

Breeding Animal Species: Some special-status animal species, such as white-tailed kite, loggerhead shrike, western pond turtle, and San Francisco dusky-footed woodrat, could potentially breed in or adjacent to the Specific Plan area but are not expected to be significantly impacted by implementation of the Specific Plan since the amount and quality of habitat being impacted is low for the above-listed species, and the number of breeding individuals that could be disturbed is very small. The MBCSP FEIR found that implementation of the Specific Plan would not substantially reduce regional populations of these species. The MBCSP FEIR concluded that impacts to these species and their habitats would be considered a less-than-significant impact.

Plants: The MBCSP FEIR found that future development pursuant to the Specific Plan could adversely impact special-status plants such as the Santa Cruz tarplant (*Holocarpha macradenia*), Johnny nip (*Castilleja ambigua ssp. ambigua*), fragrant fritillary (*Fritillaria liliacea*), and Diablo helianthella (*Helianthella castanea*) and their associated habitats. However, surveys would be conducted to determine absence or presence within project footprints, and measures to avoid, preserve or compensate for any losses would be implemented (see **MBCSP FEIR Mitigation Measures Bio-5a** through **Bio-5d**). The MBCSP FEIR concluded that the impact of the development under the Specific Plan on special-status species would be less-than-significant with mitigation incorporated.

Riparian Habitat: The MBCSP FEIR found that construction activities pursuant to the Specific Plan could result in indirect effects on water quality and sensitive aquatic and wetland habitats (erosion and sedimentation) in and near the Specific Plan area. However, measures would be implemented to reduce potential impacts on riparian habitat (see **MBCSP FEIR Mitigation Measures Bio-6a** through **Bio-6b**). The MBCSP FEIR concluded that the impact of the development under the Specific Plan on riparian habitat would be less-than-significant impact with mitigation incorporated.

Federally Protected Wetlands: The MBCSP FEIR identified approximately 0.2 acres of aquatic and wetland habitats within the Specific Plan area that may be affected by construction activities pursuant to the Specific Plan. However, measures would ensure that impacts to federally protected wetlands would be reduced (see **MBCSP FEIR Mitigation Measures Bio-7a** through **Bio-7d**). The MBCSP FEIR concluded that the impact to federally protected wetlands would be less-than-significant with mitigation incorporated.

Migratory Fish or Wildlife: The Specific Plan area does not include waterways that provide for the migratory movement of fish. However, riparian areas mentioned above could provide corridors for movements of wildlife species. Given that measures outlined in **MBCSP FEIR Mitigation Measures Bio-7a** through **7e** would reduce impacts to such riparian areas, including those associated within migratory

movements, the MBCSP FEIR concluded that implementation of the Specific Plan would result in a less-than-significant impact with mitigation incorporated.

Local Policies or Ordinances: The Specific Plan area includes many trees that would qualify as "significant" or "protected" under the Hayward Tree Preservation Ordinance. Future development activities pursuant to the Specific Plan could result in the removal of such trees. However, subject to the Hayward Tree Preservation Ordinance, a permit from the City Landscape Architect would be required for removal, relocation, cutting, or reshaping of protected trees within the Specific Plan area. In addition, removal, relocation, cutting, or reshaping of street trees would require permission and approval from the City Landscape Maintenance Manager and removed trees would need to be replaced with a tree or shrub that conforms to the "Official Street Tree List". Furthermore, trees within the Specific Plan area, although they provide some wildlife habitat, are typically not naturally occurring and are usually non-native ornamental species. The MBCSP FEIR found that due to the low habitat functions of the trees and the urbanized setting of the Specific Plan area, tree loss, and the loss of potential nesting, roosting, and foraging opportunities associated with them, is not considered significant. The MBCSP FEIR concluded that implementation of the Specific Plan would result in a less-than-significant impact on significant or protected trees. No mitigation is required.

Habitat Conservation Plan: No adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan applies to the Specific Plan area. The MBCSP FEIR concluded that implementation of the Specific Plan would have no impact on any habitat conservation plan. No mitigation is required.

MBCSP FEIR Mitigation Measures

Bio-3a **Pre-demolition Surveys and Buffer Zones.** A pre-demolition survey for roosting bats will be conducted prior to any removal of buildings or trees ≥12 inches in diameter at 4.5 ft. above grade. The survey will be conducted by a qualified bat biologist (i.e., a biologist holding a CDFG collection permit and a Memorandum of Understanding with CDFG allowing the biologist to handle and collect bats). No activities that would result in disturbance to active roosts shall proceed prior to the completed surveys. If no active roosts are found, then no further action would be warranted. If a pallid bat roost is present, Mitigation Measures Bio-3b shall be implemented.

Bio-3b **Avoidance**. If an active pallid bat maternity roost is found, the project shall be redesigned to avoid the loss of the building or tree occupied by the roost, if feasible. If avoidance is not feasible, Mitigation Measures 3c and 3d shall be implemented. If the

roost is a non-maternity roost, then avoidance is not necessary, but Mitigation Measure 3c shall be implemented to avoid the injury or mortality of individual pallid bats.

Bio-3c **Exclude Pallid Bats Prior to Demolition of Roosts**. If an active pallid bat roost will be impacted, demolition of that tree or structure will commence before maternity colonies form (i.e., prior to March 1) or after young are volant (flying) (i.e., after July 31). A disturbance-free buffer zone, the extent of which shall be determined by a qualified bat biologist based on site-specific conditions, will be observed during the maternity roost season (March 1–July 31)

Bats may be evicted during the period August 1-October 31, or November 1-February 28 only during prolonged periods of warm conditions. Bats shall not be evicted on rainy nights or nights when temperatures are predicted to be less than 50 degrees F. The individuals shall be safely evicted under the direction of a qualified bat biologist by opening the roosting area to allow air flow through the cavity. Demolition should then follow no sooner than the following day (i.e., there should be no less than one night between initial disturbance for air flow and the demolition). This action will allow bats to leave during dark hours, thus increasing their chance of finding new roosts with a minimum of potential predation during daylight. Trees with roosts that need to be removed will first be disturbed at dusk, just prior to removal that same evening, to allow bats to escape during the darker hours.

Bio-3d **Provide Alternative Pallid Bat Roost**. If a tree or structure containing a pallid bat maternity roost is to be removed by the proposed project, a qualified biologist shall design and determine an appropriate location for an alternative roost structure. The qualified biologist will determine the appropriate location for the alternative roost structure based on the location of the original roost and the habitat conditions in the vicinity. The roost structure will be built to specifications as determined by the qualified biologist, or it may be purchased from an appropriate vendor. The structure will be placed as close to the impacted roost site as feasible. The project applicant will monitor the roost for up to three years (or until occupancy is determined, whichever occurs first) to determine use by bats. If by Year 3 pallid bats are not using the structure, a qualified bat biologist, in consultation with the CDFG, will identify alternative roost designs or locations for placement of the roost.

Bio-5a **Conduct Special-status Plant Surveys in Locations Where Project Activities Are Proposed to Occur in Natural Areas.** Prior to approving construction in any of the areas

mapped as agricultural/ruderal grassland, wetland, or riparian habitat in the Project area, the project proponent shall be required to hire a qualified biologist to conduct focused surveys during the published blooming period for the Santa Cruz tarplant, Johnny nip, fragrant fritillary, and Diablo helianthella. The locations and specific habitat requirements of each of these species are outlined in the Biological Resources Report prepared for the Mission Boulevard Corridor Specific Plan EIR.

Bio-5b **Determine CEQA Significance for Potential Impacts.** After protocol- level floristic surveys are completed, a species-specific determination of potential significance will be conducted for each plant species by a qualified plant ecologist, using the results of the Project Area survey and existing databases.

Due to the regional rarity of the one species (Santa Cruz tarplant) that is listed under the federal and California Endangered Species Act, if this species is found to be present, any adverse effects on this species will be considered potentially significant. If activities will result in the loss of any Santa Cruz tarplants found within the proposed work area, the impact will be deemed significant and unmitigable. Implementation of the avoidance component of Mitigation Measure 5c shall be implemented for such impacts. As described earlier, the only remaining documented occurrences of this species are from Santa Cruz and Monterey counties, although the plant was known at one time on coastal terraces of the Bay Area. The discovery of this federally threatened and state endangered plant in the Project Area would represent a substantial finding requiring protection.

If any other CNPS-listed plant species are found within or directly adjacent to the proposed work area, the impact will be deemed less-than-significant and no further mitigation will be required if activities will result in either: (1) the loss of less than 5 percent of the known individuals documented as occurring within 50 mi of the impact location; or (2) if the total number of individuals is unknown, the loss of less than 5 percent of the known populations. Such an impact would be considered less-than-significant because regional populations will remain abundant following project implementation and the project will not substantially reduce the number or range of these species.

If such activities will result in loss of more than 5 percent of the known populations or individuals of these species documented as occurring within 50 mi of the impact location, this impact is determined to be significant.

It is likely that if found, impacts to small populations of List 4 species such as Johnny nip would be considered less-than-significant. These plant species are widely distributed, with many known, extant populations occurring in many counties. In other cases, the species are considered to be more rare but the amount of suitable habitat present on-site is limited, meaning that any potentially present populations are likely to be small in size and, therefore, impacts to these would likely also be less than significant. However, impacts to populations of more restricted, rare, or declining species are likely to be considered significant unless mitigated. Finally, for those species that have a potential to occur on-site as a large population due to the abundance of potentially suitable habitat, impacts to a large population of so-called "watch-list" (i.e., CNPS List 3 and 4) species may be considered significant unless mitigated.

For any special-status plant for which it is determined that project activities may result in a significant impact, the following mitigation measure will be implemented.

Bio-5c **Avoid and Preserve Special-status Plants.** To the extent feasible, construction activities will avoid impacts to known special-status plant populations on site. All Santa Cruz tarplants and populations of CNPS- listed plants (for which a determination of significance has been determined under Mitigation Measure 5b) that are to be avoided shall be protected by a permanent buffer zone established prior to site grading. The buffer for any special-status plants on site shall be established at 50 ft. from the perimeter of the population or the individual plants unless otherwise agreed upon by a qualified botanist retained by the City. With implementation of this component of this mitigation measure, the impact would be reduced to a less-than-significant level.

Bio-5d **Compensatory Mitigation.** If avoidance of the CNPS-listed plants (for which a determination of significance has been determined) is not feasible, mitigation shall be provided via the preservation, enhancement, and management of occupied habitat for the affected species. Habitat that supports the species that are impacted shall be preserved and managed in perpetuity. The mitigation habitat shall be of equal or greater habitat quality compared to the impacted areas, as determined by a qualified botanist, in terms of soil features, extent of disturbance, vegetation structure, and dominant species composition, and will contain at least as many individuals of the impacted species as are impacted by project activities. The permanent protection and management of mitigation lands shall be ensured through an appropriate mechanism, such as a conservation easement or fee title purchase. A Habitat Mitigation and Monitoring Plan (HMMP) will

be developed and implemented for the mitigation lands. That plan will include, at a minimum, the following information:

- A summary of habitat impacts and the proposed mitigation
- A description of the location and boundaries of the mitigation site and description of existing site conditions
- A description of measures to be undertaken to enhance (e.g., through focused management) the mitigation site for the focal special-status species
- A description of measures to transplant individual plants or seeds from the impact area to the mitigation site, if appropriate (which will be determined by a qualified botanist)
- Proposed management activities to maintain high-quality habitat conditions for the focal species
- A description of habitat and species monitoring measures on the mitigation site, including specific, objective final and performance criteria, monitoring methods, data analysis, reporting requirements, monitoring schedule, etc.
- Contingency measures for mitigation elements that do not meet performance criteria

Alternatively, mitigation could be provided by contributing funds to an entity, such as the East Bay Regional Parks District, that would be used specifically to enhance and manage habitat supporting the species for which mitigation is needed. Such enhancement and management would be performed in accordance with the HMMP contents listed above.

Bio-6a **Incorporate Best Management Practices for Water Quality During Construction.** The project will incorporate Best Management Practices (BMPs) for water quality. These BMPs will include numerous practices that will be outlined in the Stormwater Pollution Prevention Plan (SWPPP), but will include measures such as:

1. No equipment will be operated in live flow in any of the channels or ditches on or adjacent to the Project area.

2. No debris, soil, silt, sand, bark, slash, sawdust, cement, concrete, washings, petroleum products or other organic or earthen material shall be allowed to enter into or be placed where it may be washed by rainfall or runoff into aquatic or wetland habitat.

3. Standard erosion control and slope stabilization measures will be required for work performed in any area where erosion could lead to sedimentation of a waterbody. For example, silt fencing will be installed just outside the limits of grading and construction in any areas where such activities will occur upslope from, and within 50 ft. of, any wetland, or aquatic habitat. This silt fencing will be inspected and maintained regularly throughout the duration of construction.

4. Machinery will be refueled at least 50 ft. from any aquatic habitat, and a spill prevention and response plan will be developed. All workers will be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

Bio-6b **Minimize Soil Disturbance Adjacent to Wetland Habitat.** To the extent feasible, soil stockpiling, equipment staging, construction access roads, and other intensively soil-disturbing activities will not occur immediately adjacent to any wetlands that are to be avoided by the project. The limits of the construction area will be clearly demarcated with Environmentally Sensitive Area fencing to avoid inadvertent disturbance outside the fence during construction activities.

Bio-6c **Ensure Adequate Stormwater Run-off Capacity.** Increases in stormwater run-off due to increased hardscape will be mitigated through the construction and maintenance of features designed to handle the expected increases in flows and provide adequate energy dissipation. All such features, including outfalls, will be regularly maintained to ensure continued function and prevent failure following construction.

Bio-7a **Delineate Riparian, Aquatic, and Wetland Boundaries.** Prior to any ground disturbing activities that could potentially have direct impacts on riparian, aquatic, or wetland habitats, a focused delineation will be performed to determine the precise limits of these habitats within the project Area.

Bio-7b **Impact Avoidance/Minimization.** Future project elements shall be designed to avoid and minimize impacts to these sensitive habitats to the extent practicable while still accomplishing project objectives.

Bio-7c **Restoration of Temporarily Impacted Wetland/Aquatic Habitats.** Riparian, aquatic, or wetland habitats that are temporarily impacted during construction of specific development projects shall be restored to pre- existing contours and levels of soil compaction following build-out. The means by which such temporarily impacted areas will be restored shall be detailed in the mitigation plan described in Mitigation Measure 7d below.

Bio-7d **Compensation for Permanently Impacted Riparian, Wetland and Aquatic Habitats.** Unavoidable permanent fill of riparian, wetland, and aquatic habitats shall be mitigated at a minimum ratio of 1:1 (mitigation area: impact area) by creation or restoration of similar habitat. Mitigation may be achieved through a combination of on-site restoration or creation of riparian, wetland, or aquatic habitats (including removal of on-site fill or structures that results in a gain of wetland or aquatic habitats); off-site restoration/creation; funding of off-site restoration/creation projects implemented by others; and/or mitigation credits purchased at mitigation banks within the San Francisco Bay Region.

For funding of off-site improvements or purchase of mitigation bank credits, the project Proponent shall provide written evidence to the City that either: (1) compensation has been established through the purchase of a sufficient number of mitigation credits in a mitigation bank to satisfy the mitigation acreage requirements of the project activity; or (2) funds sufficient for the restoration of the mitigation acreage requirements of the project activity have been paid to an entity implementing a project that would create or restore habitats of the type being impacted by the project.

For areas to be restored as mitigation for temporary or permanent impacts, the project applicant shall prepare and implement a mitigation plan. The project applicant shall retain a qualified restoration ecologist or wetland biologist to develop the mitigation plan, which shall contain the following components (or as otherwise modified by regulatory agency permitting conditions):

- Summary of habitat impacts and proposed mitigation ratios, along with a description of any other mitigation strategies used to achieve the overall mitigation ratios, such as funding of off-site improvements and/or purchase of mitigation bank credits
- Goal of the restoration to achieve no net loss of habitat functions and values

- Location of mitigation site(s) and description of existing site conditions
- Mitigation design:
    - Existing and proposed site hydrology
    - Grading plan if appropriate, including bank stabilization or other site stabilization features
    - Soil amendments and other site preparation elements as appropriate
    - Planting plan
    - Irrigation and maintenance plan
    - Remedial measures/adaptive management, etc.
- Monitoring plan (including final and performance criteria, monitoring methods, data analysis, reporting requirements, monitoring schedule, etc.)
- Contingency plan for mitigation elements that do not meet performance or final success criteria.

Analysis of the Proposed Project

Special Status Species and their Habitats: As the project site has been previously developed, there is no agricultural, ruderal grassland or other natural habitat on the project site that would provide foraging or nesting habitat for the golden eagle. There would be no impact on this species.

The proposed project would involve the removal of 42 trees and demolition of all existing buildings on site. It is possible that pallid bats are present in the existing buildings and trees, and the proposed project could adversely impact pallid bat roosts. **MBCSP FEIR Mitigation Measures Bio-3a** through **Bio-3d,** which would be incorporated into the proposed project, would require preconstruction surveys to determine the presence or absence of pallid bats, and avoidance and creation of alternate habitat in the event of discovery. Similar to the conclusion in the MBCSP FEIR, the impact of the proposed project on pallid bats would be less-than-significant with mitigation incorporated, as thus would not trigger the implementation of the MBSCP FEIR Mitigation Measures Bio-5a and Bio-5d. No new mitigation is required.

As discussed above, the project site and vicinity have been previously developed and are within an urbanized environment. The project site does not contain habitat necessary to support special-status plants or other special-status wildlife species identified as having potential to occur in the Specific Plan area. However, as described under **Section 4.12** Best Management Practices, as part of the proposed project a preconstruction survey would be conducted if construction would commence during the nesting

season –between February through August. The intent of the survey would be to determine if active nests of special-status bird species or other species protected by the Migratory Bird Treaty Act and/or the California Fish and Game Code are present within the construction zone or within 500 feet of the construction zone. If active nests are found, a no-disturbance buffer zone would be created around active nests during the breeding season or until a qualified biologist determines that all young have fledged. Therefore, similar to the conclusion in the MBCSP FEIR, impact of the proposed project on special-status plants and wildlife species would be less-than-significant. No new mitigation is required.

Riparian and/or other Protected Habitats: As the project site is currently developed with commercial and residential uses, there are no wetland or aquatic habitats present on the site. However, similar to the conclusion of the MBCSP FEIR, project construction could result in indirect effects on water quality and sensitive aquatic and wetland habitats through the process of erosion or sedimentation. **MBCSP FEIR Mitigation Measures Bio-6a** through **Bio-6c** from the MBCSP FEIR would also apply to the proposed project to reduce any indirect impacts on riparian habitats from the discharge of sediment to a less-than-significant level. No new mitigation is required.

Federally Protected Wetlands: The project site has been previously developed with commercial and residential buildings and parking areas, and there are no occurrences of federally protected wetlands. Therefore, the proposed project would have no impact on wetlands and **MBCSP FEIR Mitigation Measures Bio-7a** through **7d** identified in the MBCSP FEIR to reduce impacts to wetlands during implementation of the Specific Plan would not be applicable to the proposed project. No new mitigation is required.

Migratory Fish or Wildlife Corridors: Given the project's location in central Hayward and the absence of a waterway or riparian area on or near the project site, no significant wildlife movement occurs through the project site at the present time. Therefore, the proposed project would have a less than significant impact in this regard and **MBCSP FEIR Mitigation Measures Bio-7a** through **7d** identified in the MBCSP FEIR to reduce impacts to migratory movements of wildlife would not be applicable to the proposed project. However, numerous common bird species could nest on or near the project site and development of the proposed project would result in the removal of mature trees on the project site that are large enough to support nesting. Active nests of common bird species are protected by the Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code (CFGC). In the event that nesting birds are present on or directly adjacent to the project site when construction is commenced or when the on-site trees are removed, construction activities could result in the direct loss of or noise-disturbance to an active nest. However, as noted in **4.12, Proposed Project's Best Management Practices**, as part of the proposed project and in compliance with the MBTA and CFGC, a preconstruction survey would be conducted prior to any construction activities to identify and avoid or adequately protect active nests. Therefore, the

proposed project's impact on migratory fish or wildlife corridors would be less-than-significant. No new mitigation is required.

Conflict with Local Policies or Ordinances for Protection of Biological Resources: The City of Hayward contains many species of native and non-native trees of significant size and quality that contribute in a positive way to its environment. The City's Tree Ordinance is intended to protect and preserve significant trees and control the re-shaping, removal or relocation of those trees that provide benefits for the neighborhood or the entire community while recognizing that there are rights to develop private property. During a tree survey conducted on July 29, 2016, 71 trees were documented on the project site. Of the 71 trees, 46 trees were found to qualify as protected trees under the City of Hayward Tree Ordinance, of which 6 trees were reported as dead.[10] The City typically requires all protected trees removed to be replaced with like-size, like-kind, or equal-value trees. In cases where like-size, like-kind trees are not available, the City requires the developer to pay for the value of the tree(s) as appraised in the site specific protected tree appraisal report. In compliance with the City's Tree Ordinance, the proposed project would remove up to 42 trees (with a value of $42,400) and would plant up to 700 trees (with a value of $196,440) throughout the project site (See **Appendix B**, Protected Tree Appraisal Report). Therefore, similar to the MBCSP FEIR conclusion, the proposed project would not conflict with local policies and ordinances for the protection of biological resources and the impact would be less-than-significant. No new mitigation is required.

Habitat Conservation Plan: The proposed project is within the Specific Plan area which has no adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Similar to the conclusion in the MBCSP FEIR, the proposed project would have no impact associated with a conflict with a Habitat Conservation Plan or other approved conservation plans. No new mitigation is required.

Cumulative: Cumulative impacts from the projected development in the City of Hayward, including the MBCSP development, are evaluated in the 2040 General Plan EIR. The proposed Mission Crossings project is consistent with the MBCSP and is therefore an element of the growth analyzed in the 2040 General Plan EIR. That EIR concluded that the cumulative impacts related to biological resources would be less than significant. The 2040 General Plan includes an extensive array of coordinated policies and implementation programs to protect biological resources. In addition, the Planning Area is within the City's adopted Urban Limit Line to protect biological resources, which would ensure that cumulative impacts associated with biological resources would be less than significant. Furthermore, as the analysis

[10] Protected trees are defined in Section 10-5.13 as those with a minimum diameter at breast height (DBH) of 8 inches, street trees, memorial trees dedicated by a City-recognized entity, specimen trees that define a neighborhood or community, and those trees planted to replace a protected tree.

above shows, the proposed project's impacts related to biological resources would be less than significant. Therefore, the proposed project would not make a cumulatively considerable contribution to any significant cumulative impact with respect to Biological resources

Changes in Circumstances and/or Substantial New Information

Since certification of the MBCSP FEIR, there have been no changes in circumstances at the project site or any new substantial information that would alter the conclusions of the MBCSP FEIR with respect to biological resource impacts such that additional environmental review would be triggered.

Findings

The potential biological impacts of the proposed project are comparable to those analyzed in the MBCSP FEIR. For reasons stated above, the proposed project's potential impacts related to biological resources would be less-than-significant with the incorporation of **MBCSP FEIR Mitigation Measures Bio-3a** through **Bio-3d** and **Bio-6a** through **Bio-6c,** discussed above. The potential biological impacts of the proposed project are adequately analyzed in the MBCSP FEIR. No new or substantially increased significant impacts would result from the proposed project beyond those discussed in MBCSP FEIR. No new mitigation is required.

5.5 Cultural Resources

	Potentially Significant New Impact	Less than Significant New Impact with Mitigation	Less than Significant New Impact	Impact Fully Analyzed in the MBCSP FEIR
CULTURAL RESOURCES - Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☐	☒
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒

MBCSP FEIR Conclusions

Historical Resources: The City's 2009 Historic Resource Survey documented the presence of numerous properties within the Specific Plan area which contain structures over fifty (50) years in age at the time the survey was conducted. The MBCSP FEIR found that construction within the Specific Plan area may involve physical changes to known or unknown historical resources. As part of the Specific Plan, a new policy was established to facilitate the preservation and renewal of historic properties. In addition, the Specific Plan incorporated by reference the City's Historic Preservation Ordinance (Municipal Code Chapter 10, Article 11) that requires compliance with the historic resource identification provisions of Section 10-11.040 and historical alteration permit requirements of Section 10-11.050. The MBCSP FEIR concluded that with review of future development proposals for compliance with CEQA and application of the Hayward Historic Preservation Ordinance, implementation of the Specific Plan would result in a less-than-significant impact to historical resources. No mitigation is required.

Archaeological Resources: The Specific Plan area is considered to be sensitive for prehistoric archaeological resources as it is within a location that would have been suitable for prehistoric occupation, with access to water in San Lorenzo Creek and Ward Creek, and access to other resources. Although no prehistoric archaeological resources were identified during preparation of the MBCSP FEIR, the FEIR found that there remains the potential that buried prehistoric deposits are present within the Specific Plan area.

The MBCSP FEIR also found that the Specific Plan area is sensitive for historic archaeological resources. Although some areas of the Specific Plan could not be surveyed during the preparation of the MBCSP FEIR, due to terrain constraints, no historic archaeological resources were identified during the survey of areas that were accessible. The MBCSP FEIR found that there is still the potential that buried historic deposits exist within the Specific Plan area, especially in those areas where residences or businesses were located in the 1800s and early 1900s. During earth-moving activities associated with the implementation of the Specific Plan, unidentified prehistoric and historic archaeological resources may be encountered. The MBCSP FEIR concluded that with implementation of **MBCSP FEIR Mitigation Measures Cultural-2a** and **Cultural-2b**, which require the City of Hayward to publish or adopt the archaeological sensitivity map prepared for the Specific Plan area and a continued adherence to the Hayward Historic Preservation Ordinance would reduce impact on archaeological resources to a less-than-significant level. The MBCSP FEIR also noted that with review of future development proposals for compliance with CEQA, as necessary project specific mitigation measures would be applied and the set of standard conditions of approval listed below would be implemented.

Paleontological resources: The low-lying portions of the Specific Plan area are underlain by young alluvial deposits associated with a large Holocene (less than 11,000 years old) alluvial fan complex formed where

San Lorenzo and Ward Creeks release from the Hayward Hills. These alluvial fan sediments have generally been known to yield significant paleontologic remains because they are formations considered as fossil-bearing rock units. For this reason the MBCSP FEIR found that paleontological resources may be encountered during construction and excavation activities pursuant to the Specific Plan. The MBCSP FEIR concluded that implementation of **MBCSP FEIR Mitigation Measure Cultural-3** would reduce the impact to a less-than-significant level.

Human Remains: The MBCSP FEIR found that the Specific Plan area is sensitive for prehistoric human remains due to its location near water and other resources needed for inhabitance. A prehistoric archaeological site containing human burials was identified along San Lorenzo Creek, approximately 660 feet from the Specific Plan area. For this reason the MBCSP FEIR found that there is a potential to encounter undiscovered human remains during ground disturbing activities as part of the implementation of the Specific Plan. The MBCSP FEIR concluded that with implementation of **MBCSP FEIR Mitigation Measure Cultural-4** and the conditions of approval listed below, the impact associated with human remains would be less-than-significant.

MBCSP FEIR Conditions of Approval

(1) An archaeologist shall be present on-site to monitor all ground-disturbing activities. Where historical or archaeological artifacts are found, work in areas where remains or artifacts are found will be restricted or stopped until proper protocols are met, as described below:

i. Work at the location of the find will halt immediately within thirty feet of the find. If an archaeologist is not present at the time of the discovery, the applicant shall contact an archaeologist for evaluation of the find to determine whether it qualifies as a unique archaeological resource.[11]

ii. If the find is determined not to be a unique archaeological resource, construction can continue. The archaeologist will prepare a brief informal memorandum/letter that describes and assesses the significance of the resource, including a discussion of the methods used to determine significance for the find.

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11 A unique archaeological resource is an archaeological artifact, object, or site about which it can be clearly demonstrated that without merely adding to the current body of knowledge there is a high probability that it meets one of the following criteria:
(a) The archaeological artifact, object, or site contains information needed to answer important scientific questions, and there is a demonstrable public interest in that information;
(b) The archaeological artifact, object, or site has a special and particular quality, such as being the oldest of its type or the best available example of its type; or
(c) The archaeological artifact, object, or site is directly associated with a scientifically recognized important prehistoric or historic event or person.

iii. If the find appears to be significant and to qualify as a unique archaeological resource, the archaeologist will determine if the resource can be avoided and will detail avoidance procedures in a formal memorandum/letter.

iv. If the resource cannot be avoided, the archaeologist shall develop an action plan to avoid or minimize impacts. The field crew shall not proceed until the action plan is approved by the Planning Director. The action plan shall be in conformance with California Public Resources Code 21083.2.

(2) In addition to the conditions listed above, all development projects located within an archaeological sensitivity area and/or containing known archaeological resources on-site shall also be subject to the following measures as conditions of project approval:

i. This project may adversely impact undocumented human remains or result in the discovery of significant historic or archaeological materials. The following policies and procedures for treatment and disposition of inadvertently discovered human remains or archaeological materials shall apply.

   a) If human remains are encountered, they shall be treated with dignity and respect as due to them. Information about such a discovery shall be held in confidence by all project personnel and shared only on a need-to-know basis. The rights of Native Americans to practice ceremonial observances on sites, in labs and around artifacts shall be upheld.

   b) Remains shall not be held by human hands. Surgical gloves shall be worn if remains need to be handled.

   c) Surgical masks shall also be worn to minimize exposure to pathogens that may be associated with the remains.

ii. In the event that known or suspected Native American remains are encountered or significant historic or archaeological materials are discovered, ground-disturbing activities shall be immediately stopped. Examples of significant historic or archaeological materials include, but are not limited to, concentrations of historic artifacts (e.g., bottles, ceramics) or prehistoric artifacts (chipped chert or obsidian, arrow points, groundstone mortars and pestles), culturally altered ash-stained midden soils associated with pre-contact Native American habitation sites, concentrations of fire-altered rock and/or burned or charred organic materials and historic structure remains, such as stone-lined building foundations, wells or privy pits. Ground-disturbing project activities may continue in other areas that are outside the exclusion zone as defined below.

iii. An "exclusion zone" where unauthorized equipment and personnel are not permitted shall be established (e.g., taped off) around the discovery area, plus a reasonable buffer zone, by the

contractor foreman or authorized representative, or party who made the discovery and initiated these protocols, or if on site at the time or discovery, by the monitoring archaeologist (typically 25 to 50 feet for single burial or archaeological find).

iv. The exclusion zone shall be secured (e.g., 24-hour surveillance) as directed by City or Alameda County representatives, if considered prudent to avoid further disturbances.

v. The contractor foreman or authorized representative, or party who made the discovery and initiated these protocols shall be responsible for immediately contacting by telephone the parties listed below to report the find and initiate the consultation process for treatment and disposition:

a) The City of Hayward Planning Director;

b) The contractor's point(s) of contact;

c) The Coroner of the County of Alameda (if human remains found);

d) The Native American Heritage Commission (NAHC) in Sacramento; and

e) The Yrgin band of Ohlones.

vi. The Coroner shall examine the remains after being notified of the discovery. If the remains are Native American, the Coroner shall notify the NAHC within 24 hours.

vii. The NAHC shall be responsible for identifying and immediately notifying the Most Likely Descendant (MLD) from the Yrgin band of Ohlones. (Note: NAHC policy holds that the Native American Monitor will not be designated the MLD.)

viii. Within 24 hours of notification by the NAHC, the MLD will be granted permission to inspect the discovery site.

ix. Within 24 hours of notification by the NAHC, the MLD may recommend to the City's Planning Director the recommended means for treating or disposing, with appropriate dignity, the human remains and any associated grave goods. The recommendation may include the scientific removal and non-destructive or destructive analysis of human remains and items associated with Native American burials. Only those osteological analyses or DNA analyses recommended by the Amah Mutsun Tribal Band may be considered and carried out.

x. If the MLD recommendation is rejected by the City, the parties shall attempt to mediate the disagreement with the NAHC. If mediation fails then the remains and all associated grave offerings shall be reburied with appropriate dignity on the property in a location not subject to further subsurface disturbance.

MBCSP FEIR Mitigation Measures

Culture-2a **Adoption of Archaeological Resource Sensitivity Map.** The City of Hayward shall adopt the archaeological sensitivity map found within the September 2012

"Archaeological Resources Assessment Report for the Mission Boulevard Corridor Specific Plan EIR, Alameda County, California" prepared by William Self Associates.

Culture-2b **Utilization of Archaeological Resource Sensitivity Map.** Projects within the project area shall comply with the Historic Preservation Ordinance for the City of Hayward as set forth in Chapter 10 Article 11 of the Hayward Municipal Code and use the archaeological sensitivity maps provided as Appendix A: Figures 8, 9, and 10 to the September 2012 "Archaeological Resources Assessment Report for the Mission Boulevard Corridor Specific Plan EIR, Alameda County, California" prepared by William Self Associates.

Culture-3 **Construction Halt and Consultation in Event of Unanticipated Discovery of Paleontological Resources.** In the event of unanticipated discoveries of paleontological resources, the project sponsor shall promptly notify the City and retain a qualified paleontologist who shall document the discovery as needed, evaluate the potential resource, and assess the significance of the find under the criteria set forth in CEQA Guidelines §15064.5. In the event of an unanticipated discovery of a brea (a seep of natural petroleum that preserved and fossilized remains of trapped animals) or of fossils during construction, excavations within fifty (50) feet of the find shall be temporarily halted or diverted until the discovery is examined by a qualified paleontologist (per Society of Vertebrate Paleontology standards (SVP 2010). The paleontologist shall notify the City, including all other appropriate agencies, to determine procedures that would be followed before construction is allowed to resume at the location of the find. If the City determines that avoidance is not feasible, the paleontologist shall prepare an excavation plan for mitigating the effect of the project on the qualities that make the resource important, and such plan shall be implemented. The plan shall be submitted to the City for review and approval.

Culture-4 **Adherence to California Health and Safety Code §7050.5(b).** If human remains, or possible human remains, are encountered during future project-related construction activities, Section 7050.5(b) of the California Health and Safety code must be implemented. Section 7050.5(b) states:

"In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the

Government Code), that the remains are not subject to the provisions of Section 27492 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code.

The County Coroner, upon recognizing the remains as being of Native American origin, is responsible to contact the Native American Heritage Commission (NAHC) within 24 hours. The Commission has various powers and duties, including the appointment of a Most Likely Descendant (MLD) to the project. The MLD, or in lieu of the MLD, the NAHC, has the responsibility to provide guidance as to the ultimate disposition of any Native American remains."

Analysis of the Proposed Project

Historical Resources: The proposed project would demolish an existing mid-1960s Ford dealership main building with associated facilities located at 25501 Mission Boulevard, a 1980s car dealership building located at 25551 Mission Boulevard, and a circa 1910 residence fronting on 671 Berry Avenue. In February 2017, Basin Research Associates conducted a Built Environment Assessment for the buildings on the project site that were greater than 50 years old (attached in **Appendix C**). As detailed in the Built Environment Assessment, none of these buildings or properties adjacent to the project site are listed, pending or determined to be eligible for listing on the California Register of Historical Resources. No local, state or federal historically or architecturally significant structures, landmarks, or points of interest have been identified. In addition, none of the project site's existing buildings were found to contribute to an eligible historic district defined under the California Register of Historical Resources. Therefore, the proposed project would have no impact on historical resources. No new mitigation is required.

Archaeological Resources: In compliance with **MBCSP FEIR Mitigation Measure Cultural-2a,** the City has adopted the Archaeological Resource Sensitivity Map, on January 21, 2014. Based on the City's adopted Archaeological Resource Sensitivity Map, the project site is within an area depicted as sensitive for prehistoric archaeological resources including human remains and historic archaeological resources. Therefore, there is the potential that buried prehistoric deposits are present within the project site. The proposed project would implement the conditions of approval (1) i through (1) iv and 2(i) through 2 (X) identified in the MBCSP FEIR and listed above. In addition, the proposed project would implement **MBCSP FEIR Mitigation Measure Culture-2b** and comply with the Hayward Historical Preservation Ordinance Section 10-11-150. Therefore, similar to the MBCSP FEIR conclusion, the proposed project's

impact on archaeological resources would be less-than-significant with mitigation incorporated. No new mitigation is required.

Paleontological Resources: Although there are no known paleontological resources on the project site and the project site has been disturbed by past grading activities, unknown resources may be encountered during construction and excavation. Similar to the conclusion in the MBCSP FEIR, the proposed project's impacts on paleontological resources would be reduced to a less-than-significant level with implementation of **MBCSP FEIR Mitigation Measure Cultural-3**. No new mitigation is required.

Human Remains: The project site is not located in an area with known burial sites and due to prior disturbance, it is unlikely that human remains are present on the project site. However, there is still a potential that human remains could be encountered during project construction. The **MBCSP FEIR Mitigation Measure Cultural-4** and conditions of approval (2) i through (2) x listed above would be applicable to the proposed project. Therefore, similar to the MBCSP FEIR conclusion, the proposed project's impact on human remains would be less-than-significant with mitigation incorporated. No new mitigation is required.

Cumulative: Cumulative impacts from the projected development in the City of Hayward, including the MBCSP development, are evaluated in the 2040 General Plan EIR. The proposed Mission Crossings project is consistent with the MBCSP and is therefore an element of the growth analyzed in the 2040 General Plan EIR. That EIR concluded that the cumulative impacts related to cultural resources would be less than significant. Impacts to cultural resources within the City would be avoided or reduced by implementing the policies and programs outlined in the General Plan, which would ensure that cumulative impacts associated with cultural resources would be less than significant. Furthermore, as the analysis above shows, the proposed project's impacts related to hazards and hazardous materials would be less than significant. Therefore, the proposed project would not make a cumulatively considerable contribution to any significant cumulative impact with respect to cultural resources.

Changes in Circumstances and/or Substantial New Information

At the time the MBCSP FEIR was prepared, CEQA did not require an analysis of impacts to tribal cultural resources due to project implementation. AB 52, which was approved in September 2014 and became effective on July 1, 2015, requires that CEQA lead agencies consult with California Native American tribes that are traditionally and culturally affiliated with the geographic area of a proposed project, if so requested by the tribes. A provision of the bill, chaptered in CEQA Section 21084.2, also specifies that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. Therefore, CEQA requires a

determination whether the project would cause a substantial adverse change in the significance of a Tribal Cultural Resource as defined in Section 21074. This additional analysis is included as part of this addendum in **Section 5.18** for informational purposes only. There have been no other changes in circumstances at the project site or substantial new information that would alter the conclusions of the MBCSP FEIR with respect to cultural resource impacts such that additional environmental review would be triggered.

Findings

The potential cultural resource impacts of the proposed project are comparable or less to those identified in the MBCSP FEIR. For reasons stated above, the proposed project's potential impacts related to cultural resources would be less-than-significant with the relevant conditions of approval and incorporation of **MBCSP FEIR Mitigation Measures Cultural-2b, Cultural-3** and **Cultural-4**. The potential cultural resources impacts of the proposed project are adequately analyzed in the MBCSP FEIR. No new or substantially increased significant impacts would result from the proposed project beyond those discussed in MBCSP FEIR. No new mitigation is required.

5.6 Geology and Soils

	Potentially Significant New Impact	Less than Significant New Impact with Mitigation	Less than Significant New Impact	Impact Fully Analyzed in the MBCSP FEIR
GEOLOGY AND SOILS - Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☒

	Potentially Significant New Impact	Less than Significant New Impact with Mitigation	Less than Significant New Impact	Impact Fully Analyzed in the MBCSP FEIR
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

MBCSP FEIR Conclusions

Fault Rupture: The active Hayward fault traverses through the eastern portion of the Specific Plan area. The historic record indicates that a major earthquake on the Hayward fault or other nearby faults could result in fault rupture within the Specific Plan area with the potential to damage or destroy existing and future dwelling units, roads, utilities and other structures. Implementation of the Specific Plan includes the application of a new General Plan land use designation (i.e., Sustainable Mixed Use). The MBCSP FEIR found that the new land use designation would not further increase the hazards associated with fault rupture when compared to the existing General Plan land use designation. Furthermore, it would not invalidate or alter **the General Plan EIR Mitigation Measure 9-1** which requires assessing the location of developments with respect to the potential fault rupture hazard area and siting habitable constructions at a sufficient distance (50 feet) from a fault trace. The MBCSP FEIR found that implementation of the requirements associated with the Alquist-Priolo Earthquake Fault Zoning Act and continued implementation of **General Plan EIR Mitigation Measure 9-1** (presented below) would reduce the risk of exposure of new developments to fault rupture. The MBCSP FEIR concluded that the implementation of the Specific Plan would have a less-than-significant impact associated with fault rupture. No mitigation is required.

Seismic Ground Shaking: The Specific Plan area has a high potential for very strong ground shaking in a major seismic event due to its proximity to the active Hayward fault and underlying deposits of unconsolidated, recent alluvium and/or man-made fill that have been shown to amplify the effects of

strong seismic ground shaking. The MBCSP FEIR found that the new land use designation (i.e., Sustainable Mixed Use) would not further increase the hazards associated with ground shaking when compared to the existing General Plan land use designation. Furthermore, it would not alter the **General Plan Mitigation Measure 9-2** (presented below)which requires compliance with Hayward's project development review and construction oversight process that incorporates the recommendations of a registered geotechnical engineer pursuant to the California Building Code and standard geotechnical practices. The MBCSP FEIR concluded that with implementation of these requirements, the impact relative to seismic ground shaking from the implementation of the Specific Plan would be less-than-significant. No mitigation is required.

Ground Failure and Landslides: Portions of the Specific Plan area are within areas presenting a hazard with regard to liquefaction and earthquake-induced landslides. The MBCSP FEIR found that the new land use designation (i.e., Sustainable Mixed Use) would not further increase the hazards associated with ground failure and landslides when compared to the existing General Plan land use designation. The MBCSP FEIR concluded that liquefaction and earthquake-induced landslide hazards would continue to be reduced to less-than-significant levels through the implementation of Hayward's development review and construction oversight process and the continued implementation of the requirements of **General Plan EIR Mitigation Measures 9-3** and **9-5** (presented below)No mitigation is required.

Soil Erosion: Although the Specific Plan area is predominately urbanized and paved, site preparation and construction activities associated with individual development or redevelopment projects could result in soil erosion as the surface is disturbed during demolition and/or grading. The MBCSP FEIR found that erosion control associated with future development within the Specific Plan area would be addressed through the established regulatory provisions of the City and regional agencies, including provisions in the City's Grading and Clearing Ordinance (Chapter 10, Article 8 of Municipal Code), the Stormwater Management and Urban Runoff Control Ordinance (Chapter 11, Article 5 of Municipal Code), and best management practices. The MBCSP FEIR concluded that compliance with these regulatory provisions as well as adherence to **General Plan EIR Mitigation Measure 9-6** (presented below) would ensure that the erosion impact associated with implementation of the Specific Plan would be less-than-significant. No mitigation is required.

Unstable Geologic Units & Expansive Soils: Much of the Specific Plan area is mantled by clayey soils of the Clear Lake-Omni series, which are expansive soils that have a high shrink-swell potential. The MBCSP FEIR found that the impact associated with expansive soils would be reduced through implementation of Hayward's development review and construction oversight process, which incorporates the recommendations of a registered geotechnical engineer in accordance with the California Building Code and standard geotechnical practices. The MBCSP FEIR concluded that continued implementation of these

processes and adherence to **General Plan EIR Mitigation Measure 9-4** (presented below) would ensure that the impact associated with unstable soils from the implementation of the Specific Plan is less-than-significant. No mitigation is required.

Septic Tanks: Properties within the Specific Plan area must connect to Hayward's municipal sewer system in accordance with Municipal Code §11-3.2001 (Duty to Connect to Municipal Sewer). The MBCSP FEIR concluded that implementation of the Specific Plan would have no impact associated with septic tanks. No mitigation is required.

General Plan EIR Mitigation Measures

Mitigation Measure 9-1 (Site Specific Trenching Studies): New development, major rehabilitation projects should continue to be required to comply with the regulations in force within the Alquist-Priolo (Earthquake Fault Hazard) Special Study Zone, which require that properties within the potential fault rupture hazard area be studied (usually by excavating a trench perpendicular to the suspected fault line), that the specific location of a fault trace be found or disproved for an individual property, and that habitable structures must be located a sufficient distance (usually 50 feet) from the trace to avoid direct impacts of surface fault rupture.

Mitigation Measure 9-2 Building Code Compliance & Education. The effects of ground shaking on structures and other improvements which may be proposed under the General Plan should be reduced by earthquake-resistant design in accordance with the latest editions of the Uniform Building Code and the Califomia Building Code. The potential effects of ground shaking on existing structures should be evaluated by engineering studies as part of any major rehabilitation or addition. Where studies indicate that buildings may be subject to significant damage during earthquakes, the structures can be retrofitted for seismic resistance.

Mitigation Measure 9-3 Site-Specific Geotechnical Investigations. Geotechnical evaluations should be required for developments proposed in areas suspected of having high or very high potential for seismically-induced ground failure. Common measures for mitigating these hazards include over-excavation and recompaction of foundation soils, densification of site

soils, or providing a mat or other type of reinforced foundation, and avoiding landslide-prone areas and areas with other severe constraints.

Mitigation Measure 9-4 Soil Compaction and Amendment. The expansion potential for any clayey materials encountered should be determined on a project-specific basis per ASTM D-4829, Standard Test Method for the Expansion Index of Soils. Highly expansive soils under new buildings and utilities should be removed or amended, and compacted to provide a stable foundation. Surface water should be drained away from the building to minimize the potential for shrink-swell action. To ensure uniform characteristics in areas of low strength soils, and to obviate any potential for differential settlements, site preparation (consisting of over excavation and recompaction of the near-surface soils) may be required prior to placement of new fills, pavements, slabs, and structures; subject to review during grading.

Mitigation Measure 9-5 Site-Specific Geotechnical Investigations. Because of the potential for land-sliding or soil creep on steep slopes, a geologic evaluation by a registered geologist shall be prepared for any development planned within 200 feet of areas greater than 50 percent slope as shown on USGS topographic maps. Any structures situated on slopes greater than 30 percent gradient should incorporate geotechnical recommendations regarding foundations, retaining walls, and grading limitations derived from a site-specific geotechnical investigation.

Mitigation Measure 9-6 Erosion Control Measures During construction, efforts should be made to keep the disturbance of existing vegetation to a minimum. This can be accomplished primarily by keeping construction machinery off of established vegetation as much as possible, especially on the upwind side of the construction site. Specific access routes should be established at the planning phase of the projects, and limits of grading established prior to development should be strictly observed. In addition, mechanical measures, such as silt fences and straw bales, should be used to reduce soil movement, in accordance with Best Management Practices.

Analysis of the Proposed Project

Fault Rupture: In compliance with the **General Plan Mitigation Measure 9-1**, a Geotechnical Feasibility Assessment was prepared in September 2015 for the project site. Based on the study, there are no active earthquake faults extending across the surface of the project site. The site is not located within a currently designated Alquist-Priolo Earthquake Fault Zone. The closest fault to the project site is Hayward fault located approximately 800 feet to the west. Therefore, the proposed project would not result in the exposure of people or structures to substantial adverse effects as a result of geologic hazards associated with fault rupture, and this impact relating to fault rupture at the project site would be similar or less than that identified for the Specific Plan in the MBCSP FEIR. No new mitigation is required.

Seismic Ground Shaking: The project site is located within a broader area that has very strong ground shaking potential from an earthquake on the nearby faults. However, the proposed project would adhere to the requirements stated in the MBCSP FEIR that are associated with project development review and construction oversight process in accordance with **General Plan EIR Mitigation Measure 9-2**. The proposed project would be designed and constructed in accordance with the CBC and other applicable requirements and standards, and thus would be consistent with the current prevailing standard of care for structural and civil engineering and seismic safety. Therefore, similar to conclusions set forth in the MBCSP FEIR, the proposed project's impact associated with exposure to seismic ground shaking would be less-than-significant.

Ground Failure and Landslides: Based on the review of topographic and lithologic data, the risk of landslide is low to negligible at the project site (ENGEO 2015a). Review of the Seismic Hazard Zones Map for the Hayward Quadrangle indicated that the project site is not located within a mapped liquefaction zone. Additionally, based on the generalized subsurface conditions, potentially liquefiable layers are located beneath an approximately 30 to 40 foot non-liquefiable layer of clay (ENGEO 2015a). The proposed project would adhere to Hayward's development review and construction process, which incorporates the recommendations of a registered geotechnical engineer in accordance with the Seismic Hazards Mapping Act, the CBC, and all applicable standards and requirements. As such, the risk of displacement due to liquefaction and associated ground failure during a seismic event is considered low and similar to the analysis set forth in the MBCSP FEIR, the impact would be less-than-significant. No new mitigation is required.

Soil Erosion: The project site is currently developed with commercial and residential uses. As a result, the project would not result in direct loss of topsoil resources. However, construction of the proposed project would require grading and excavation, which would expose soil to erosion. As the proposed project would disturb more than one acre, coverage under the state's National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges of Storm Water Associated with Construction Activity would be required prior to construction and the construction contractor would be required to file a notice

of intent (NOI) with the State Water Resources Control Board and develop and implement a site-specific Storm Water Pollution Prevention Plan (SWPPP). The SWPPP is required to include Best Management Practices (BMPs) to control on-site erosion and off-site sedimentation, and to keep construction pollutants from coming into contact with storm water. The City of Hayward would have oversight responsibility and would have the authority to shut down construction in the event the SWPPP is improperly implemented. Once the project is constructed, the project site would be under impervious surfaces or under landscaping. Similar to the conclusions set forth in the MBCSP FEIR, the proposed project would comply with the relevant regulatory provisions of the City and regional agencies and adhere to the **General Plan EIR Mitigation Measure 9-6** which requires implementation of erosion control measures and **MBCSP Mitigation Measure Bio-6a** which requires implementation of BMPs for water quality. These BMPs would include numerous practices that would be outlined in the SWPPP. Therefore, similar to the development under the Specific Plan, the potential for soil erosion under the proposed project would be minimal and the impact would be less-than-significant. No new mitigation is required.

Unstable Geologic Unit & Expansive Soils: The proposed project would implement Hayward's development review and construction oversight process and adhere to **General Plan EIR Mitigation Measure 9-4**. Additionally, the proposed project would adhere to the City's adopted building code and all other applicable standards and requirements, which includes detailed provisions that require foundations of new buildings to be designed and constructed appropriate to site soil conditions, including requirements to address expansive and otherwise problematic soils. Therefore, similar to the development under the Specific Plan, the proposed project's impact associated with unstable soils would be less-than-significant. No new mitigation is required.

Septic Tanks: The proposed project would connect to existing sanitary sewer mains adjacent to the project site in accordance with Municipal Code §11-3.2001. Similar to the development under the Specific Plan, the proposed project would have no impact associated with septic tanks and no new mitigation is required.

Cumulative: Cumulative impacts from the projected development in the City of Hayward, including the MBCSP development, are evaluated in the 2040 General Plan EIR. The proposed Mission Crossings project is consistent with the MBCSP and is therefore an element of the growth analyzed in the 2040 General Plan EIR. That EIR concluded that the cumulative impacts related to geology and soils would be less than significant. All development projects including the proposed project would have to comply with City's regulations and all other applicable standards and requirements associated with the Uniform Building Code and the California Building Code and all other applicable standards and requirements, which would ensure that cumulative impacts associated with geology and soils would be less than significant. Furthermore, as the analysis above shows, the proposed project's impacts related to geology

and soils would be less than significant. Therefore, the proposed project would not make a cumulatively considerable contribution to any significant cumulative impact with respect to geology and soils.

Changes in Circumstances and/or Substantial New Information

Since certification of the MBCSP FEIR, there have been no changes in circumstances or substantial new information that would alter the conclusions of the MBCSP FEIR with respect to soils and geologic impacts such that additional environmental review would be triggered.

Findings

The potential geological impacts of the proposed project are similar to those analyzed in the MBCSP FEIR. For reasons stated above, the proposed project's potential impacts related to geological resources would be less-than-significant. The potential impacts of the proposed project associated with geology and soils are adequately analyzed in the MBCSP FEIR. No new or substantially increased significant impacts would result from the proposed project beyond those discussed in MBCSP FEIR. No new mitigation is required.

5.7 Greenhouse Gas Emissions

	Potentially Significant New Impact	Less than Significant New Impact with Mitigation	Less than Significant New Impact	Impacts Fully Analyzed in the MBCSP FEIR
GREENHOUSE GAS EMISSIONS - Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☐	☒
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

MBCSP FEIR Conclusions

Short-term Construction GHG Emissions: The MBCSP FEIR concluded that BAAQMD does not require separate analysis of construction-period GHG emissions for assessment of plans.

Long Term Operational GHG Emissions: The MBCSP FEIR found that the annual net increase in emissions attributable to build-out of the Specific Plan would be 16,732.42 metric tons (MT) CO_2e/year. Dividing these emissions by the service population of 6,603 persons results in an average of 2.53 $MTCO_2e$/service population/year, which is below the applied efficiency-based significance threshold of 6.6 MTCO2e/service population/year. The MBCSP FEIR concluded that the Specific Plan impacts related to GHG emissions would be less-than-significant. The MBCSP FEIR noted that this conclusion was reached with taking into account factors such as transit-accessible sites as well as regulations that would reduce energy usage, waste, and vehicle emission rates, all of which would further reduce GHG emissions. Furthermore, the MBCSP FEIR noted that the City of Hayward has a variety of policies, programs and actions to address global climate change that would apply to the plan area, including, among others, the City's Construction and Demolition Debris Waste Reduction and Recycling Ordinance, City Standards, and the Green Building Ordinance. The MBCSP FEIR concluded that the Specific Plan would have less-than-significant GHG impacts. No mitigation is required.

GHG Reduction Policy Consistency: Implementation of the Specific Plan would accommodate office, retail, and commercial services, as well as residential development in proximity to each other and transit opportunities. The MBCSP FEIR found locating this mix of land uses nearby transit would provide opportunities for reduced vehicle trips locally and reduced VMT in the region associated with commuting, shopping, and recreational activities. Additionally, the project would accommodate and promote bicycle, pedestrian, and transit travel throughout the Specific Plan area. Therefore, implementation of the Specific Plan would be consistent with planning principles identified in the AB 32 Scoping Plan needed to achieve the state's GHG emissions reduction target.

The MBCSP FEIR found that implementation of the Specific Plan would be consistent with the Bay Area 2010 CAP which includes four Energy and Climate Measures (ECMs) aimed at reducing GHG emissions beyond the level of emissions that would already result from implementation of other strategies (see Table 10-2 in the MBCSP FEIR for consistency analysis). The MBCSP FEIR also found that the Specific Plan would be consistent with the goals and actions of the Hayward CAP that includes strategies for GHG reductions.

The MBCSP FEIR concluded that implementation of the Specific Plan would be consistent with the AB 32 Scoping Plan, Bay Area 2010 CAP, and Hayward CAP. The Specific Plan would have no impact related to conflict with a GHG reduction strategy. No mitigation is required.

Analysis of the Proposed Project

Short-term Construction GHG Emissions: The BAAQMD does not provide any guidance on what level of construction-phase GHG emissions would be considered substantial enough to result in a significant impact. CO_2 emissions associated with project construction would be short-term, occurring only during construction and therefore would have a very limited impact on overall state emission rates. Neither the City nor the BAAQMD have put forth quantitative thresholds for evaluation of the significance of a project's construction emissions. The proposed project would also include the Best Management Practices outlined in **Section 4.12** to reduce exhaust emissions from construction vehicles and equipment which would also reduce GHG emissions. For all of the reasons provided above, the impact of the proposed project's construction-phase GHG emissions would be less than significant and no mitigation is required.

Long Term Operational GHG Emissions: GHG emissions associated with development of the proposed project would occur over the short-term from construction activities, consisting primarily of emissions from equipment exhaust and worker and vendor trips. There would also be long-term operational emissions associated with vehicular traffic within the project vicinity, energy and water usage, and solid waste disposal. As discussed in **4.15, Project Consistency with the Specific Plan**, the proposed project is within the scope of the Specific Plan in terms of the types of land uses, overall development footprint, and the density of the proposed development. Consequently, the residential population and employment growth associated with the proposed project would be also within the population and employment estimates presented in the MBCSP FEIR. As a result, the GHG emissions associated with the project are accounted for in the estimate of total and per capita GHG emissions reported in the MBCSP FEIR. As described in the MBCSP FEIR, implementation of the Specific Plan would generate long-term operational GHG emissions, but these would be below the BAAQMD's GHG efficiency-based threshold. Therefore, similar to the conclusion in the MBCSP FEIR, the impact of the GHG emissions associated with the proposed project's would be less-than-significant and no mitigation is required.

GHG Reduction Policy Consistency: Implementation of the proposed project would result in a significant impact related to GHG emissions if the project were in conflict with an applicable plan, policy, or regulation concerning GHG emissions reductions. As noted above, the MBCSP FEIR concluded that implementation of the Specific Plan would be consistent with the AB 32 Scoping Plan, Bay Area 2010 CAP, and the Hayward CAP. Because the proposed project conforms to the Specific Plan and would result in building space, traffic, residential population, and employment growth that are all consistent

with the Specific Plan, similarly it would not be in conflict with the AB 32 Scoping Plan, Bay Area 2010 CAP, and the Hayward CAP. Therefore, similar to the conclusion of the MBCSP FEIR, no impact would occur. No new mitigation is required.

Changes in Circumstances and/or Substantial New Information

Since the certification of the MBCSP FEIR, additional laws and regulations have been enacted related to GHG emissions. In 2016 SB 350 and SB 32 were signed into law, establishing the state's mid-term target for 2030 emissions to be 40 percent below the 1990 emissions. It is noted that all of the targets set forth in the state laws related to GHG emissions and climate change are applicable to the state as a whole, consistent with previous related laws and regulations, rather than designed to have individual projects meet these targets. Furthermore, as of the writing of this addendum, CARB and the BAAQMD have not adopted additional regulations and programs to address the new state laws, and any evaluation of the project's consistency with future regulations would involve speculation. These do not equate to a change in circumstances or substantial new information that would trigger additional environmental review.

Findings

The potential impacts from GHG emissions generated by the proposed project are similar to those analyzed in the MBCSP FEIR. For reasons stated above, the proposed project's potential impacts related to GHG emissions would be less-than-significant. The potential GHG impacts of the proposed project are adequately analyzed in the MBCSP FEIR. No new or substantially increased significant impacts would result from the proposed project beyond those discussed in MBCSP FEIR. No new mitigation is required.

5.8 Hazards and Hazardous Materials

	Potentially Significant New Impact	Less than Significant New Impact with Mitigation	Less than Significant New Impact	Impact Fully Analyzed in the MBCSP FEIR
HAZARDS AND HAZARDOUS MATERIALS- Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☒
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident	☐	☐	☐	☒

	Potentially Significant New Impact	Less than Significant New Impact with Mitigation	Less than Significant New Impact	Impact Fully Analyzed in the MBCSP FEIR
conditions involving the release of hazardous materials into the environment?				
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h) Expose people or structures to a significant risk of loss, injury or death involving wild land fires, including where wild lands are adjacent to urbanized areas or where residences are intermixed with wild lands?	☐	☐	☐	☒

MBCSP FEIR Conclusions

Transport, Use, and Disposal of Hazardous Materials: Implementation of the Specific Plan would increase the intensity of land development within the Specific Plan area and, in doing so, increase the number of businesses that routinely transport, use, or dispose of hazardous materials. Hayward General Plan identifies goals, policies and actions designed to reduce the impact of businesses routinely using, storing, and transporting hazardous material. The MBCSP FEIR found that these actions, along with provisions of the Hayward Municipal Code, in combination with California Department of Transportation, California Department of Toxic Substance Control, and California State Water Resource Control Board regulations,

would reduce the impact from the routine use, transport, or disposal of hazardous material to a less-than-significant level. No mitigation is required.

Upset or Accidental Hazards: The MBCSP FEIR found that no reasonably foreseeable hazardous material release would likely happen as a result of implementation of the Specific Plan. Some sites within the Specific Plan area have a history of hazardous material use and potential health and safety hazards may be present. Implementation of the Specific Plan would result in an increase in the number of people exposed to any potential release of hazardous materials. However, the MBCSP FEIR included **MBCSP FEIR Mitigation Measure HAZ-2**, which requires the preparation of a Phase 1 to determine the likelihood of the presence of hazards and/or hazardous materials and whether construction activities would lead to a release of hazardous materials. The MBCSP FEIR concluded that the impact associated with upset or accidental hazards from development under the Specific Plan would be reduced to a less-than-significant level with mitigation incorporated.

Hazards near Schools: Implementation of the Specific Plan could introduce new activities and land uses within a quarter-mile of existing schools. These land uses and activities may or may not include the transport, use and/or handling of hazardous materials. The MBCSP FEIR found that state regulations on siting of hazardous materials facilities and schools limit any such facilities' proximity to schools. Additionally, the Specific Plan does not include a proposed land use classification that explicitly accommodates hazardous materials handling and/or disposal. The MBCSP FEIR concluded that Specific Plan's impacts associated with hazards near schools would be less-than-significant. No mitigation is required.

Public Airport Safety Hazard: The Specific Plan area is located within approximately 1.75 miles of the Hayward Executive Airport and is outside the Hayward Executive Airport Influence Area, which is defined by the Airport Land Use Compatibility Plan.[12] Therefore, the MBCSP FEIR concluded that the development under the Specific Plan would not expose additional persons to a safety hazard relative to aircraft operations at the Hayward Executive Airport and no impact would occur. No mitigation is required.

Private Airship: There are no private airstrips within two miles of the Specific Plan area. Therefore, the MBCSP FEIR concluded that implementation of the Specific Plan would have no impact associated with private airstrip safety hazard for people residing or working in the Specific Plan area. No mitigation is required.

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12 The Hayward Executive Airport Land Use Compatibility Plan defines the Airport Influence Area as: *The area in which current or future airport-related noise, overflight, safety, and/or airspace protection factors may significantly affect land uses or necessitate restrictions on those uses.*

Emergency Response or Evacuation Plan: The MBCSP FEIR found that implementation of the Specific Plan would not interfere with the rules and regulations of the City's Emergency Communications and Operations Manual. In addition, the Specific Plan would not modify the primary local and regional evacuation thoroughfare (Mission Boulevard). Over time, implementation of the Specific Plan could improve emergency response and evacuation routes through the construction of new thoroughfares. Future development activities implemented in accordance with the Specific Plan could temporarily impede traffic flows and affect the accessibility of evacuation routes or emergency response. However, the Hayward Municipal Code requires the Public Works Director to evaluate construction activities affecting the public right-of-way and, thereby, ensure emergency response and evacuation needs are accommodated (Hayward Municipal Code, Chapter 7 (Public Works), Article 2 (Streets)). The MBCSP FEIR concluded that implementation of the Specific Plan would have no impact associated with emergency response or evacuation plans. No mitigation is required.

Wildland Fire Hazards: The Specific Plan area is not located within or adjacent to a fire hazard severity zone subject to state responsibility. However, the Specific Plan area is situated within and adjacent to a Wildland-Urban Interface Fire Area designated by the Hayward Fire Department. The MBCSP FEIR found that development and redevelopment activities under the Specific Plan would result in the placement of additional and/or different structures within the wildland fire hazard area, including additional persons. CBC Section 701A.3.2 would apply to construction activities under the Specific Plan, including both the Hayward Fire Prevention Code and Hillside Design and Urban/Wildland Interface Guidelines. The mandatory requirements of these documents would outline how development proposals must address fire hazards associated with steep slopes, open grass/brush lands, woodland and riparian zones which may be difficult for the Hayward Fire Department to control. The MBCSP FEIR concluded that continued implementation of these requirements would ensure no significant risk of loss, injury or death involving wildland fires would result under the Specific Plan and this impact would be less-than-significant. No mitigation is required.

Cumulative: Developments under the Specific Plan could include demolition of existing structures that may contain hazardous materials. The MBCSP FEIR found that these developments would be required to adhere to applicable regulations and guidelines pertaining to abatement of, and protection from, exposure to oil, pesticides, asbestos, lead, and other hazardous materials. Under **MBCSP FEIR Mitigation Measure Haz-2**, site-specific investigations would be conducted at sites where contaminated soils could occur to minimize the exposure of workers to hazardous substances. The MBCSP FEIR found that the contribution of the Specific Plan would not be cumulatively considerable and impacts would be less-than-significant.

The MBCSP FEIR noted that operations associated with the implementation of the Specific Plan could include transportation, storage, and use of hazardous materials regulated by existing statutes. The MBCSP FEIR found that applicable regulations and guidelines would negate accidental release of hazardous materials and the Specific Plan's contribution would not be cumulatively considerable. The MBCSP FEIR concluded that cumulative impacts of the Specific Plan associated with the transportation, storage, and use of hazardous materials would be less-than-significant. No mitigation is required.

MBCSP FEIR Mitigation Measures

Haz-2 **Require Phase 1 Environmental Site Assessments for Development Projects.** Prior to development/re-development of properties located within the project area, a Phase I Environmental Site Assessment shall be performed to assess any potential risks of hazardous material release to the property or the environment due to any previous land uses. This Phase I environmental site assessment will determine the likelihood of the presence of hazards and/or hazardous materials and determine whether construction activities on the building site will lead to a release of hazardous material.

Analysis of the Proposed Project

Transport, Use, and Disposal of Hazardous Materials: Although hazardous materials, including fuel, lubricants, and cleaning products, would be used on-site during construction of the proposed project, compliance with local, state, and federal regulations, including NPDES regulations that require proper containment and control of hazardous materials used as part of the project's SWPPP, would minimize risks associated with the routine transport, use, or disposal of hazardous materials during project construction. The operation of the proposed mixed-use project would not involve the routine transport, use, or disposal of hazardous materials, other than fuel, cleaning products, and maintenance materials that are typical for this type of development. Due to the nature of the materials and the quantities used, impacts with regard to the routine transport, use, or disposal of hazardous materials are expected to be less-than-significant similar to the conclusions of the MBCSP FEIR. No new mitigation is required.

Upset or Accidental Hazards: As the MBCSP FEIR stated, some sites within the Specific Plan area have a history of hazardous material use and, potential health and safety hazards may be present and construction activities could expose potential hazardous materials and release them to the environment.

Based on a Phase I Environmental Site Assessment (ESA) prepared for 25501 and 25551 Mission Boulevard in April 2008, uses identified at the site included storage and use of petroleum products and storage and disposal of petroleum and hazardous wastes, two clarifiers, three active and 21 out-of-service abandoned in-ground hydraulic lifts, three groundwater monitoring wells, and three former

underground storage tanks (USTs) (AET 2008b). The site is listed on the Resource Conservation and Recovery Act -small quantity generators (RQRA- SQG) lists as a small quantity generator of hazardous wastes. The site is also listed on the Leaking Underground Storage Tanks (LUST) and Cortese lists as a leaking UST site. The leak was reported in 1992 during the removal of an underground storage tank (UST). Historical uses at 25501 and 25551 Mission Boulevard included raw-crop agriculture, orchards, and small residential dwellings (AET 2008b).

In May 2008, a Phase II ESA, conducted for 25501 and 25551 Mission Boulevard, included sampling of the three groundwater monitoring wells as well as subsurface soil samples taken at 21 abandoned and three active in-ground hydraulic lifts, two clarifiers, and at the former used oil UST. Elevated levels of total petroleum hydrocarbons (TPH) were present in soils at hydraulic lift locations; an exterior clarifier at the main service building had soil impacted with low concentrations of total petroleum hydrocarbons as diesel (TPH-d) and volatile organic compounds (VOCs); and ground water samples from two monitoring wells were impacted with gasoline-related compounds (AET 2008c).

A second Phase II ESA conducted in November 2008 at 25501 and 25551 Mission Boulevard, included additional groundwater sampling and concluded the groundwater is impacted with gasoline-related compounds at the two monitoring well locations but at concentrations less than those reported in December 1992, indicating that natural attenuation was likely occurring (AET 2008a).

On November 12, 2013, the San Francisco Bay Regional Water Quality Control Board as the lead agency for the LUST case, issued a Closure Letter, indicating the case meets the State Board's Low-Threat Case Closure Policy and that No Further Action is required. The monitoring wells were destroyed in June 2013. At the time of closure, the site was zoned commercial and the RWQCB acknowledged residual impacts remain with soil and groundwater (SFRWQCB 2013).

In April 2012, a Phase I ESA was prepared for the residential portion of the project site at 671 Berry Avenue, no evidence was discovered to indicate that activities currently or historically conducted on or near 671 Berry Avenue have contributed contamination to soil or groundwater beneath the project site (ERAS 2012). The Phase II ESA for 671 Berry Avenue did not identify any recognized environmental conditions for the property. Based on the age of the single home located at 671 Berry Avenue (circa 1910), it is possible that asbestos and lead based paint could be present. With regard to mold, none was observed in the buildings. A domestic water well was reported on the southeastern side of the home. Hazardous materials observed at 671 Berry Avenue consisted of approximately 20 pints and 12 quarts of oil spray for insects, and 5 to 10 gallons of common household cleaners. No evidence of leakage, spillage or dumping of regulated material was observed on the site. In addition, septic systems, drywells, above

ground storage tanks, monitoring wells or evidence of subsurface investigations was not observed on the 671 Berry Avenue portion of the project site (ERAS 2012).

In September 2015, ENGEO prepared a Phase II ESA for the entire 9.73 acre project site. The purpose of the report was to confirm whether any portion of the project site had any Recognized Environmental Conditions. A Recognized Environmental Condition (REC) is defined as "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. De minimis conditions are not recognized environmental conditions."

Based on laboratory test results, the project site does not appear to have been significantly adversely impacted due to its past agricultural use. Reported concentrations of arsenic were within the background concentrations found in the region of California (Brandford, et al., 1996). Eight metals were detected in three soil samples collected from fill material which were all below their respective screening levels. VOCs and total petroleum hydrocarbons as gasoline (TPH-g) were not detected in soil samples from the project site but TPH-d and total petroleum hydrocarbons as motor-oil (TPH-mo) were detected. However, TPH-d and TPH-mo were found in concentrations below regional screening levels (RSLs) for residential land use. The testing of five soil gas samples concluded that vapor encroachment or intrusion would not be considered to pose a risk to future occupants of the proposed condominiums (ENGEO 2015).

Given the history of the site, it is possible that some areas with potentially impacted soil could be encountered during site development activities. As noted in **4.12 , Proposed Project's Best Management Practices**, the project developer would prepare a Soil Management Plan that would outline procedures and protocols for handling potentially impacted soil. In addition, the project developer would retain a licensed lift contractor to remove the hydraulic lifts present at the project site and would submit a work plan to the Hayward Fire Department that describes remedial activities at the lifts location. Materials containing any asbestos and lead-based paint present in the buildings to be demolished would be removed by qualified abatement contractors. Therefore, similar to the conclusion in the MBCSP FEIR, potential impacts of the proposed project associated with exposure of residents, other project users, or workers to hazardous materials would be less-than-significant. No new mitigation is required.

Hazards near Schools: Harder Elementary School is located approximately 0.2 mile south of the project site. However, the proposed project would not handle hazardous or acutely hazardous material, substances, or waste and would not result in hazardous emissions that could affect nearby schools given the typical, residential, mixed-use nature of the project. Therefore, similar to the conclusion in the MBCSP FEIR, the

proposed project would have a less-than-significant impact on nearby schools. No new mitigation is required.

Public Airport Safety Hazard: Hayward Executive Airport is located approximately 2.1 miles west of the project site. The project site is not located within the airport influence area of the nearest airport. Therefore, the proposed project would not result in a safety hazard for people living, occupying, visiting, or working at the project site. Similar to the conclusion in the MBCSP FEIR, the proposed project would have no impact with regard to public airport safety hazard. No new mitigation is required.

Private Airstrip: There are no private airstrips in the vicinity of the project site. Similar to the conclusion in the MBCSP FEIR, the proposed project would not result in a safety hazard associated with a private airstrip. No new mitigation is required.

Emergency Response or Evacuation Plan: The City of Hayward has adopted ABAG's Multi-Jurisdictional Local Hazard Mitigation Plan to reduce or eliminate long-term hazard risk to people and properties. Construction of the proposed project would occur within the boundary of the project site. With the exception to temporary one-lane closure (30 to 60 days) along Mission Street during the construction of the slip lane and the temporary one-lane closure along Torrano Avenue during the connection to the water and wastewater mains, the proposed project would not result in any road closures. The Hayward Municipal Code, Chapter 7 Article 2, requires the Public Works Director to evaluate construction activities affecting the public right-of-way and, thereby, would ensure emergency response and evacuation needs are accommodated. Therefore, the proposed project would not significantly impede any emergency routes. Similar to the conclusion in the MBCSP FEIR, the proposed project would have no impact associated with emergency response or evacuation plan. No new mitigation is required.

Wildland Fire Hazards: The project site is located in an urban area and is not located within or adjacent to a fire hazard severity zone subject to state responsibility. The project site is located within a Wildland-Urban Interface Fire Area designated by the Hayward Fire Department]. However, the project site does not include any steep slopes, open grass/brush lands, or woodland and riparian zones which may be difficult for the Fire Department to control. Similar to the conclusion in the MBCSP FEIR, the proposed project's impact associated with wildland fire hazards would be less-than-significant. No new mitigation is required.

Cumulative: Cumulative impacts from the projected development in the City of Hayward, including the MBCSP development, are evaluated in the 2040 General Plan EIR. The proposed Mission Crossings project is consistent with the MBCSP and is therefore an element of the growth analyzed in the 2040 General Plan EIR. That EIR concluded that the cumulative impacts related to hazards and hazardous

materials would be less than significant. All projects within the City would have to comply with relevant regulatory requirements, which would ensure that cumulative impacts associated with hazards and hazardous materials would be less than significant. Furthermore, as the analysis above shows, the proposed project's impacts related to hazards and hazardous materials would be less than significant. Therefore, the proposed project would not make a cumulatively considerable contribution to any significant cumulative impact with respect to hazards and hazardous materials.

Changes in Circumstances and/or Substantial New Information

Since certification of the MBCSP FEIR, there have been no changes in circumstances or substantial new information that would alter the conclusions of the MBCSP FEIR with respect to hazards and hazardous materials impacts such that additional environmental review would be triggered.

Findings

The potential hazards and hazardous impacts of the proposed project would be comparable to or less than those analyzed in the MBCSP FEIR. For reasons stated above, the proposed project's potential impacts related to hazards and hazardous materials would either be none or less-than-significant. The potential hazards and hazardous materials impacts of the proposed project are adequately analyzed in the MBCSP FEIR. No new or substantially increased significant impacts associated with hazardous materials would result from the proposed project beyond those discussed in MBCSP FEIR. No new mitigation is required.

5.9 Hydrology and Water Quality

	Potentially Significant New Impact	Less than Significant New Impact with Mitigation	Less than Significant New Impact	Impact Fully Analyzed in the MBCSP FEIR
HYDROLOGY AND WATER QUALITY - Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☐	☒

	Potentially Significant New Impact	Less than Significant New Impact with Mitigation	Less than Significant New Impact	Impact Fully Analyzed in the MBCSP FEIR
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 planned uses for which permits have been granted)?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on- or off-site?	☐	☐	☐	☒
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?	☐	☐	☐	☒
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☒
f) Otherwise substantially degrade water quality?	☐	☐	☐	☒
g) 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?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

MBCSP FEIR Conclusions

Water Quality Standard Violation:

Short Term-Construction Impacts

The MBCSP FEIR found that development under the Specific Plan could temporarily contribute to degradation of water quality through erosion, sedimentation, stormwater contamination, pesticide use for site preparation, or spills or leak of construction equipment/machinery use. However, the MBCSP FEIR found that implementation of **MBCSP FEIR Mitigation Measure Hyd-1**, which requires compliance with City's water quality requirements and state NPDES Construction General Permit would reduce the temporary impact of the development under the Specific Plan on water quality to a less-than-significant level.

Long Term Post-Construction Impacts

Implementation of the Specific Plan would increase the intensity of land use, and over time include the construction of new roads to improve vehicular and pedestrian connectivity. The MBCSP FEIR found that overall, an increased intensity of land use and associated traffic would have the potential to increase the discharge of polluted runoff. However, stormwater runoff from the long-term development of the Specific Plan area would be typical of urban watersheds with similar land uses. The MBCSP FEIR concluded that implementation of **MBCSP FEIR Mitigation Measure Hyd-2,** which requires adherence to local and state water quality control requirements, would reduce the long-term impact of the Specific Plan development on water quality to a less-than-significant level.

Groundwater Supply and Recharge: Groundwater has been measured within the Specific Plan area at depths of up to 10 feet from ground surface. However, the MBCSP FEIR found that underlying groundwater basin is not utilized as a water supply and no pumping activities currently occur within the City of Hayward. The MBCSP FEIR concluded that the impact associated with groundwater supply and recharge would be less-than-significant. No mitigation is required.

Alteration in Drainage Patterns: The MBCSP FEIR found that although some stormwater flows from the Specific Plan area would eventually reach San Lorenzo and Ward Creeks, implementation of the Specific Plan would not alter those water features. Compliance of the Specific Plan with the mandatory stormwater permit requirements identified in **MBCSP FEIR Mitigation Measures Hyd-1** and **Hyd-2** would ensure that the potential for short-term and long-term impacts related to erosion and siltation in the creeks would not be substantial. The MBCSP FEIR concluded that the impact on drainage patterns would be less-than-significant.

Stormwater System Capacity: Stormwater from the southern portion of the Specific Plan area flows to the west through several mains of various sizes, ranging from 15-inch to 72-inch, and discharges into Alameda County Flood Control and Water Conservation District (ACFC&WCD) owned lines. The MBCSP FEIR found that collected stormwater resulting from the Specific Plan development would not result in substantial increase in polluted runoff with implementation of **MBCSP FEIR Mitigation Measures Hyd-1** and **Hyd-2**.

The MBCSP FEIR found that development within the Specific Plan area could contribute to increased drainage flows that would result in localized flooding. The MBCSP FEIR concluded that implementation of a site-specific drainage plan as detailed in **MBCSP FEIR Mitigation Measure Hyd-4** would reduce the impact to a less-than-significant level.

Otherwise Degrade Water Quality: The MBCSP FEIR found that implementation of the Specific Plan would not significantly degrade water quality for reasons other than those discussed above. However, development within the Specific Plan may need to undergo additional environmental review in accordance with CEQA Guidelines §15168(c), which would include additional review of site specific storm water runoff. The MBCSP FEIR concluded that the Specific Plan would have no impact associated with degrading water quality for reasons other than those discussed above. No mitigation is required.

Flood Water Hazards, 100-Year Flood: A portion of the Specific Plan area includes a mapped 100-year flood hazard area. Although that mapped flood hazard area is depicted as contained within the engineered channel of Ward Creek, the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) map does not necessarily identify all areas subject to flooding, particularly those from local drainage sources of small size. Therefore, the MBCSP FEIR conservatively concluded that the Specific Plan could result in the placement of housing within a flood hazard area and, consequently, would have the potential to subject the buildings and inhabitants to flooding hazard. The MBCSP FEIR found that implementation of **MBCSP FEIR Mitigation Measure Hyd-5**, which requires the preparation of a hydrology and hydraulic study for development adjacent to channelized portion of Ward Creek, would reduce this impact to a less-than-significant level.

Flood Water Hazards, Dam, Levee, Tsunami, Seiche: The MBCSP FEIR found that dam failure at the Don Castro Reservoir would flood areas to the north of the Specific Plan area (i.e., near San Lorenzo Creek). Due to the relatively flat topography and its distant location from the ocean and San Francisco Bay, the MBCSP FEIR found that inundation by a tsunami or seiche event is not expected to affect the Specific Plan area. The MBCSP FEIR concluded that development would comply with standard building and safety codes as outlined under the Geology and Soils section, therefore, the Specific Plan impact relative to flood hazards would be less-than-significant. No mitigation is required.

Cumulative: The MBCSP FEIR found that continued development pursuant to the Hayward General Plan would result in impacts on water quality, particularly due to increased concentrations of urban contaminants and altered surface hydrology. However, the General Plan also includes plans to improve and protect hydrologic features within the City limits. Additionally, the City, through participation in the Alameda Countywide Clean Water Program and compliance with the municipal NPDES stormwater permit requirements, provides regional protection of water resources within the City limits. The MBCSP FEIR found that after implementation of mitigation measures, the development under the Specific Plan would not significantly alter hydrology or water quality compared to existing conditions and this cumulative impact would be less-than-significant.

MBCSP FEIR Mitigation Measures

Hyd-1 **Compliance with City Water Quality Requirements and State NPDES Construction General Permit.** All construction activities, including installation and realignment of utilities, would be subject to existing regulatory requirements, including the SWRCB statewide NPDES General Permit for Storm Water Discharges Associated with Construction Activity (Construction General Permit) (Order No. 2009 0009-DWQ, NPDES No. CAR000002). The NPDES Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP must list BMPs that the discharger will use to protect stormwater runoff, including the placement and timing of those BMPs. Additionally, the SWPPP must contain a visual monitoring program; and a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs.

Hyd-2 **Compliance with NPDES Permit Requirements, City Ordinances and ACCWP Guidelines.** All development must comply with the California Regional Water Quality Control Board San Francisco Bay Region Municipal Regional Stormwater NPDES Permit (MS4 Permit), City of Hayward Storm Water Management and Urban Runoff Control Ordinance, and Alameda County Clean Water Program (ACCWP) Guidelines.

Hyd-4 **Site-Specific Drainage Plans.** Site-specific drainage plans shall be prepared for all future construction within the project area prior to approval of a grading permit, or a building permit in the event a grading permit is not required. Each report shall include a summary of existing (pre-project) drainage flows from the project site, anticipated increases in the amount and rate of stormwater flows from the site and an analysis of the ability of downstream facilities to accommodate peak flow increases. The analysis shall also include a summary of new or improved drainage facilities needed to accommodate

stormwater increases. Each drainage plan shall be reviewed and approved by the City Public Works Director prior to approval of a grading or building permit.

Hyd-5 **100-Year Flood Hazard.** Development proposals adjacent to the channelized portion of Ward Creek (south of Orchard Avenue; north of Torrano Avenue) shall include a hydrology and hydraulic study, prepared by a California-Registered Civil Engineer, and which addresses whether the subject site would be subject to a flood hazard and whether flood waters would not be increased on any surrounding sites. If that study confirms the proposed development would be subject to a flood hazard, all proposed development shall be removed from the flood hazard area through measures including, but not limited to, increasing the topographic elevation of the site or similar steps to minimize flood hazards. The study shall be reviewed and approved by the Public Works Director, shall comply with Municipal Code Chapter 9, Article 4, and shall include, at minimum, a Conditional Letter of Map Revision (CLOMR) to remove the site from the FEMA Flood Insurance Rate Map 100-year flood hazard area.

Analysis of the Proposed Project

Violate Water Quality Standards or Otherwise Degrade Water Quality: Most of the project site is currently developed with impervious surfaces and development of the proposed project would reduce the amount of impervious surfaces on the site from approximately 89 percent impervious surfaces to approximately 80 percent impervious surfaces. As a result, the amount of runoff generated at the project site would be reduced when compared to existing conditions. The site runoff is subject to requirements listed in provision C.3 of the San Francisco Bay Region Municipal Regional Stormwater NPDES Permit (or MRP) (Regional Water Quality Board Order R2-2009-0074; and Order R2-2011-0083). This permit requires permittees to comply with the discharge prohibitions and receiving water limitations through the timely implementation of control measures and other actions as specified in the permit (San Francisco Bay RWQCB 2009). Development on the project site would be required by law to comply with applicable NPDES requirements for stormwater quality. **MBCSP FEIR Mitigation Measure Hyd-1** would be incorporated into the proposed project which would require compliance with City water quality requirements and the State NPDES Construction General Permit. Similar to the conclusion in the MBCSP FEIR, the proposed project's impact during construction relative to water quality would be less-than-significant with mitigation incorporated.

Furthermore, a Stormwater Control Plan has been developed for this site that promotes minimization of impervious surface area through building cluster design, the use of landscaping, and bioretention areas. The Stormwater Control Plan also details best management practices for pollution control. The project

design includes treatment of all stormwater runoff generated at the project site before entering the public stormwater systems. Stormwater runoff would be directed to multiple bioretention treatment areas throughout the project site that would filter pollutants from stormwater runoff using a combination of vegetation, ponding, permeable planting soil, and a subdrain system. All walkways within the project site would be sloped to drain into the surrounding landscaping and bioretention areas. The proposed project would incorporate **MBCSP FEIR Mitigation Measure Hyd-2** which requires compliance with NPDES permit requirements, city ordinances and Alameda County Clean Water Program Guidelines. Similar to the conclusion in the MBCSP FEIR, implementation of **MBCSP FEIR Mitigation Measure Hyd-2** would reduce potential long-term water quality impacts of the proposed project to a less-than-significant level. No new mitigation is required.

Groundwater Supply and Recharge: As mentioned in the MBCSP FEIR, the underlying groundwater basin is not utilized as a source of water supply and no pumping activities currently occur within the City of Hayward. Furthermore, the proposed project would increase the amount of permeable surfaces compared to existing conditions, which could potentially facilitate groundwater recharge. Therefore, similar to the conclusions in the MBCSP FEIR, the proposed project impact relative to groundwater supply and recharge would be less-than-significant.

Alteration in Drainage Patterns: The proposed project is located in an urbanized area and site runoff would be directed to the existing 57-inch storm drain, on Torrano Avenue. As mentioned in **Section 5.4** and **5.8** above, soil erosion and siltation during construction of the proposed project would be controlled through the preparation of a SWPPP since the project is more than one acre in size. After construction, the proposed project would be under impervious surfaces (buildings, pavement, etc.) and landscaping. This would minimize the potential for erosion and sedimentation in the long term, as feasible. **MBCSP FEIR Mitigation MBCSP FEIR Measures Hyd-1** and **Hyd-2** would be incorporated into the proposed project to reduce stormwater flow impact to a less-than-significant level. No new mitigation is required.

Stormwater System Capacity: As mentioned above, the proposed project site would contain a greater area of pervious surfaces and would be required to implement a SWPPP. Furthermore, implementation of a site-specific drainage plan to confirm how the project's storm drainage system would satisfy all applicable standards and requirements, as detailed in **MBCSF FEIR Mitigation Measure Hyd-4,** would be required which would reduce the impact to less-than-significant level. No new mitigation is required.

Flood Water Hazards, 100-Year Flood: There is a mapped 100-year flood hazard area adjacent to the western boundary of the project site (Ward Creek Line B), however it is not located on-site. Rather, the project site is located within Flood Zone X, which is defined as an area of moderate flood hazard located between the 100-year and 500-year flood zones. However, because Ward Creek is adjacent to the project site, the

MBCSP FEIR Mitigation Measure Hyd-5 would apply to the proposed project, which requires the preparation of a hydrology and hydraulic study by a California-Registered Civil Engineer that would be reviewed and approved by the Public Works Director and would comply with the Municipal Code Chapter 9, Article 4. With implementation of MBCSP FEIR Mitigation Measure Hyd-5, the proposed project would have less-than-significant impacts associated with flood hazards. No new mitigation is required.

Flood Water Hazards, Dam, Levee, Tsunami, Seiche: The proposed project is located within the southern section of the Specific Plan area and would not be exposed to a flood hazard from dam or levee failure given the project site's relative distance from these types of facilities. Similar to the conclusion in the MBCSP FEIR, inundation by a tsunami or seiche event is not expected to affect the project site due to the relatively flat topography and the site's distant location from the ocean and San Francisco Bay. Furthermore, mandatory compliance with standard building and safety codes would ensure flood hazards are not significant. Similar to the conclusions in the MBCSP FEIR, the proposed project's impact associated with dam or levee failure, tsunami, or seiche would be less-than-significant. No new mitigation is required.

Changes in Circumstances and/or Substantial New Information

Since certification of the MBCSP FEIR, there have been no changes in circumstances or substantial new information that would alter the conclusions of the MBCSP FEIR with respect to hydrology and water quality impacts such that additional environmental review would be triggered.

Findings

The potential hydrology and water quality impacts of the proposed project are similar to those analyzed in the MBCSP FEIR. For reasons stated above, the proposed project's potential impacts related to hydrology and water quality would be less-than-significant with implementation of **MBCSP FEIR Mitigation Measure Hyd-1, Hyd-2** and **Hyd-4**. The potential impacts of the proposed project associated with hydrology and water quality are adequately analyzed in the MBCSP FEIR. No new or substantially increased significant impacts would result from the proposed project beyond those discussed in MBCSP FEIR. No new mitigation is required.

5.10 Land Use and Planning

	Potentially Significant New Impact	Less than Significant New Impact with Mitigation	Less than Significant New Impact	Impact Fully Analyzed in the MBCSP FEIR
LAND USE AND PLANNING - Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with 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?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

MBCSP FEIR Conclusions

Divide Established Community: Development under the Specific Plan would be located within an existing urban environment and would not divide an existing community. The MBCSP FEIR found that components of the Specific Plan (e.g., Thoroughfare Plan) would help facilitate enhanced vehicular, pedestrian and bicycle access in the area through the provision of new public streets. The MBCSP FEIR concluded that the Specific Plan would have no impact on an established community. No mitigation is required.

Conflict with Applicable Land Use Plan, Policy, Regulation: The MBCSP FEIR found that the Specific Plan would implement General Plan policies related to land use, and therefore it would not conflict with General Plan. The MBCSP FEIR concluded that the Specific Plan would have no impact associated with applicable land use plan, policy, or regulation. No mitigation is required.

Conflict with Habitat Conservation Plan: The MBCSP FEIR found that the Specific Plan area is not subject to a Habitat Conservation Plan or Natural Community Conservation Plan and no impact would occur. No mitigation is required

Cumulative: The MBCSP FEIR found that the Specific Plan is an implementation of the Hayward General Plan and would result in no land-use impact. Future projects would be reviewed for conformance with the MBCSP FEIR and, if new or changed circumstances or potentially significant impacts not identified in

the MBCSP FEIR were discovered, subsequent analysis of their respective land use impacts would be required under CEQA. The MBCSP FEIR concluded that incremental impact of the Specific Plan, when considered in combination with build-out under the Hayward General Plan, would not result in cumulatively significant impacts related to land use.

Analysis of the Proposed Project

Divide an Established Community: The project site is located in central Hayward, a developed urban area. The proposed project would construct residential, commercial, and hotel uses on a site that was previously developed and would not significantly affect any public streets, pedestrian access ways, or streets proposed in the Thoroughfare Plan. Thoroughfare segments along the perimeter of the project site as shown in the Thoroughfare Plan of the Specific Plan would not be obstructed upon project implementation. As a result, development of the proposed project would not physically divide an established community. Similar to the conclusion in the MBCSP FEIR, the proposed project would have no impact on established community. No new mitigation is required.

Conflict with Applicable Land Use Plan, Policy, Regulation: As a result of the Specific Plan's amendment of the General Plan Land Use Map, the project site is designated as Sustainable Mixed Use (which allows up to 100 units per acre). The proposed project would be within the density limit and would be consistent with this land use designation. The project site at 25501 and 25551 Mission Boulevard is designated as T4-2 Urban General Zone with a commercial overlay. The eastern portion of the project site at 25501 and 25551 Mission Boulevard is within Commercial Overlay Zone 1, where ground-floor residential is prohibited. The western portion of the project site at 25501 and 25551 Mission Boulevard is within Commercial Overlay Zone 2, where ground-floor residential requires a conditional use permit. The proposed project would construct residential areas that are within the density range of the MBCSP zoning map for the requested commercial overlay. However, the proposed development at the project site would change the overlay zoning designation for a portion of the project site from T4-2 Commercial Overlay Zone 1 to T4-2 Commercial Overlay Zone 2 to allow ground floor residential with a conditional use permit. Additionally, the proposed project would include a hotel use in the designated T4-2 Urban General Zone, which would require an Administrative Use Permit. These actions would not require amendment of the General Plan or existing zoning maps. The proposed project would implement the Specific Plan and General Plan policies that include the land use vision for mixed-use development near transit facilities. Therefore, similar to the conclusion in the MBCSP FEIR, implementation of the proposed project would have a less-than-significant impact on applicable land use plan, policy, or regulation. No new mitigation is required.

Conflict with Habitat Conservation Plan: The project site and surrounding area have been developed and heavily affected by past activities. No adopted habitat conservation plan or natural community conservation plan exists for the project site or immediate area. Similar to the conclusion in the MBCSP FEIR, implementation of the project would not conflict with the provisions of any adopted habitat conservation plan or natural community conservation plan. No new mitigation is required.

Cumulative: Cumulative impacts from the projected development in the City of Hayward, including the MBCSP development, are evaluated in the 2040 General Plan EIR. The proposed Mission Crossings project is consistent with the MBCSP and is therefore an element of the growth analyzed in the 2040 General Plan EIR. That EIR concluded that the cumulative impacts related to land use and land use planning would be less than significant. All projects within the City would be required to be consistent with the land use plans and policies outlined in the 2040 General Plan, which would ensure that cumulative impacts associated with land use and land use planning would be less than significant. Furthermore, as the analysis above shows, the proposed project's impacts related to land use and land use planning would be less than significant. Therefore, the proposed project would not make a cumulatively considerable contribution to any significant cumulative impact with respect to land use and land use planning.

Changes in Circumstances and/or Substantial New Information

Since certification of the MBCSP FEIR, there have been no changes in circumstances or new information that would alter the conclusions of the MBCSP FEIR with respect to land use impacts such that additional environmental review would be triggered.

Findings

For reasons stated above, no impacts related to land use and planning would result from implementation of the proposed project. The potential land use impacts of the proposed project are adequately analyzed in the MBCSP FEIR. No new or substantially increased significant impacts would result from the proposed project beyond those discussed in MBCSP FEIR. No new mitigation is required.

5.11 Mineral Resources

	Potentially Significant New Impact	Less than Significant New Impact with Mitigation	Less than Significant New Impact	Impact Fully Analyzed in the MBCSP FEIR
MINERAL RESOURCES - Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of future value to the region and the residents of the State?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

MBCSP FEIR Conclusions

Loss of Availability of Known Mineral Resource (Local, Regional, Statewide): There are no mining activities on or near the Specific Plan area. No mining operation is proposed as part of plan implementation. The plan area is not located within a mapped mineral resource zone and no mineral resources of State or regional significance are present. Additionally, the plan area is not designated for mining activities in the City's General Plan. No impacts to mineral resources would occur and no mitigation measures are required.

Cumulative: Cumulative impacts from the projected development in the City of Hayward, including the MBCSP development, are evaluated in the 2040 General Plan EIR. The proposed Mission Crossings project is consistent with the MBCSP and is therefore an element of the growth analyzed in the 2040 General Plan EIR. That EIR concluded that the cumulative impacts related to mineral resources would be less than significant. All projects within the City would have to comply with relevant regulatory requirements, which would ensure that cumulative impacts associated with mineral resources would be less than significant. Furthermore, as the analysis above shows, the proposed project would have no impacts related to mineral resources materials. Therefore, the proposed project would not make a cumulatively considerable contribution to any significant cumulative impact with respect to mineral resources.

Analysis of the Proposed Project

Loss of Availability of Known Mineral Resource (Local, Regional, Statewide): As the proposed project is located within the MBCSP area and would not involve any mining activities, similar to the conclusion of the MBCSP FEIR, no impact related to mineral would occur. No new mitigation is required.

Changes in Circumstances and/or Substantial New Information

Since certification of the MBCSP FEIR, there have been no changes in circumstances or new information that would alter the conclusions of the MBCSP FEIR with respect to impacts to mineral resources such that additional environmental review would be triggered.

Findings

The potential mineral resource impacts of the proposed project are similar to those analyzed in the MBCSP FEIR. For reasons stated above, no new impacts to mineral resources would result with implementation of the proposed project. The potential impacts of the proposed project associated with mineral resources are adequately analyzed in the MBCSP FEIR. No new or substantially increased significant impacts will result from the proposed project beyond those discussed in MBCSP FEIR. No new mitigation is required.

5.12 Noise

	Potentially New Significant Impact	Less than Significant New Impact with Mitigation	Less than Significant new Impact	Impact Fully Analyzed in the MBCSP FEIR
NOISE - Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	☒
b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?	☐	☐	☐	☒
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
d) A substantial temporary or periodic increase in ambient	☐	☐	☐	☒

	Potentially New Significant Impact	Less than Significant New Impact with Mitigation	Less than Significant new Impact	Impact Fully Analyzed in the MBCSP FEIR
noise levels in the project vicinity above levels existing without the project?				
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

MBCSP FEIR Conclusions

Noise Exposure or Levels in Excess of Local Standards: Development under the Specific Plan could expose future land uses to noise levels exceeding those considered acceptable for such uses. Residential land uses can be expected to be exposed to noise level in excess of 60 dBA throughout the Specific Plan area. However, even greater noise levels can be expected at locations immediately adjacent to Mission Boulevard, Jackson Street and railroad tracks. The MBCSP FEIR concluded that the impact associated with noise levels in excess of local standards would be reduced to a less-than-significant level with implementation of **MBCSP FEIR Mitigation Measures Noise-1a** through **Noise-1c**, which require the preparation of an acoustic analysis and a determination for the need of noise attenuation measures.

Groundborne Noise or Vibration Exposure: The MBCSP FEIR found that ground vibration from conventional railroad trains or BART trains passing in proximity to the southern segment of the Specific Plan area could exceed the guidelines set forth by the FTA if new buildings housing sensitive uses such as residences are constructed within approximately 100 feet of the tracks.[13] However, the MBCSP FEIR concluded that implementation of **MBCSP FEIR Mitigation Measure Noise-2a**, requires the preparation of a vibration analysis for projects within 100 feet of the centerline of existing railroad and BART tracks. Implementation of **MBCSP FEIR Mitigation Measure Noise-2a** would reduce groundborne vibration impacts to a less-than-significant level.

Ground Vibration from Construction: Construction activities associated with the Specific Plan would use pile drivers, in particular, as well as other vibration which could cause construction equipment to exceed

13 Groundborne *noise* is not normally an issue with at-grade rail systems and above ground structures.

building damage thresholds within 25 feet of any building and within 100 to 200 feet of a historical building, or buildings in poor condition. The MBCSP FEIR found that implementation of **MBCSP FEIR Mitigation Measure Noise-2b**, which requires new development to minimize vibration impacts to adjacent uses during demolition and construction and that a Vibration Control Plan should be prepared for projects that include activities involving the use of a pile driver. The MBCSP FEIR concluded that implementation of **MBCSP FEIR Mitigation Measure Noise-2b** would reduce groundborne vibration impacts to a less-than-significant level.

Substantial Permanent Noise Increase (Traffic): Traffic noise levels were projected in the MBCSP FEIR for future development under the Specific Plan as well as other background development (outside of the plan area) for the year 2035. The MBCSP FEIR found that traffic noise increases of 0-1 dBA Ldn above existing levels resulting from implementation of the Specific Plan would be insignificant. While cumulative development in year 2035 would cause noise levels to increase by up to 3 dBA, that increase would be the same with or without plan implementation. As such, implementation of the Specific Plan would not a make a cumulatively considerable contribution to the increased traffic noise. Therefore, the MBCSP FEIR concluded that the Specific Plan would result in a less-than-significant impact relative to a substantial permanent noise increase due to traffic, and that no mitigation is required.

Substantial Permanent Noise Increase (Mixed-Use Development): Mixed use developments, as intended under the Specific Plan, would likely include residential uses located above or in proximity to commercial uses, and in areas located in proximity to and served by BART and bus. The MBCSP FEIR found that office, commercial, retail, or other noise-generating uses included within mixed-use developments could substantially increase noise levels at nearby or adjacent noise-sensitive land uses or could expose sensitive receivers to noise levels that exceed the City's Noise Compatibility standards. Therefore, the MBCSP FEIR found it reasonable to assume that future mixed-use developments as intended under the Specific Plan could introduce new land uses and activities that would generate a substantial increase in ambient noise levels caused by sources such as outdoor dining areas or bars, mechanical equipment, outdoor maintenance areas, truck loading docks and delivery activities, public address systems, and parking lots. The MBCSP FEIR found it also reasonable to assume that future mixed-use developments may introduce new noise-sensitive land uses into areas where existing land uses and activities already generate high ambient noise levels. The MBCSP FEIR concluded that with implementation of **MBCSP FEIR Mitigation Measure Noise-4**, compatible noise levels would be maintained in accordance with Noise Element policies and Noise Ordinance requirements and therefore the Specific Plan would have a less-than-significant permanent noise impact associated with mixed-use development.

Substantial Temporary or Periodic Noise Increase: The MBCSP FEIR found that temporary increases in noise associated with the Specific Plan's construction activities would typically be mitigated through

compliance with the noise levels and construction-period hours of the City's Noise Ordinance. However, Specific Plan related construction activities may exceed noise levels established by the Noise Ordinance. The MBCSP FEIR concluded that implementation of **MBCSP FEIR Mitigation Measure Noise-5**, which would ensure all construction activities remain compliant with applicable noise ordinances, would reduce the Specific Plan development's impact associated with temporary noise increase to a less-than-significant level.

Public Airport Use: The Specific Plan area is located outside the boundary of an approved airport land use plan but within two miles of a public airport. The MBCSP FEIR found that there would be no excessive noise exposure to people residing, occupying, utilizing, or working in the Specific Plan area. The MBCSP FEIR concluded that the Specific Plan would have no impact associated with public airport use, and that no mitigation is required.

Private Airport Noise: There are no private airstrips within two miles of the Specific Plan area. Consequently, the MBCSP FEIR found that there is no potential for people residing, occupying, utilizing, or working in the project area to be exposed to excessive private airstrip-related noise. The MBCSP FEIR concluded that the Specific Plan would have no impact associated with private airport noise, and that no mitigation is required.

MBCSP FEIR Mitigation Measures

Noise-1a For subsequent residential projects proposed in the project area, an acoustic analysis shall be prepared by a qualified acoustical specialist to demonstrate that interior noise levels can be maintained below 45 dBA Ldn (Qualifications shall include the following: Bachelor of Science or higher degree from a qualified program in engineering, physics, or architecture offered by an accredited university or college, and five years of experience in noise control engineering). This can typically be accomplished with the incorporation of an adequate forced air mechanical ventilation system in the residential units to allow residents the option of controlling noise by keeping the windows closed.

Noise-1b For subsequent commercial, industrial and institutional projects proposed in areas where exterior day-night average noise levels are, or are projected to be 60 to 70 dBA Ldn, the need for noise attenuation measures shall be determined by a qualified acoustical specialist on a project by project basis at the time development is proposed. Standard office construction methods typically provide about 25 to 30 decibels of noise reduction in interior spaces.

Noise -1c Noise levels exceed, or are projected to exceed 70 dBA Ldn, within 200 feet of the railroad tracks, within 150 feet of the centerline of Mission Boulevard, and within 175 feet of the centerline of Jackson Street. At these locations with increased noise levels, an acoustic analysis shall be prepared by a qualified acoustical specialist to demonstrate how interior noise levels can be maintained below 45 dBA Ldn and the adopted single event residential limits set forth in the Noise Element. Potential strategies are expected to be more robust than measures required by Mitigation Measure Noise 1-a and may include, but are not limited to, the inclusion of windows and doors with high Sound Transmission Class (STC) ratings, and the incorporation of forced-air mechanical ventilation systems necessary to meet 45 dBA Ldn and the Lmax noise limits. Noise barriers may be necessary to shield outdoor activity areas at multi-family residential uses facilitated by the Plan.

Noise-2a New development that is within one-hundred (100) feet of the centerline of existing railroad and BART tracks or other sources of ground-borne vibration shall have a vibration analysis prepared by a qualified vibration specialist that specifies the vibration control measures including, but not limited to, setbacks and structural design features to reduce vibration levels at or below the guidelines of the Federal Transit Administration criteria, consistent with the receiving land use categories of Category 1, Category 2 or Category 3 as shown in **Table 15-7** (Groundborne Vibration Impact Criteria). (Qualifications shall include: Bachelor of Science or higher degree from a qualified program in engineering or physics, offered by an accredited university or college, and five years or experience in vibration control engineering).

Noise-2b New development shall minimize vibration impacts to adjacent uses during demolition and construction. For sensitive historic structures, a vibration limit of 0.08 in/sec PPV (peak particle velocity) will be used to minimize the potential for cosmetic damage to the building. A vibration limit of 0.30 in/sec PPV will be used to minimize the potential for cosmetic damage at buildings of normal conventional construction. For activities involving the use of a pile driver, a Vibration Control Plan shall be prepared and approved by the Development Services Director or Designee. The Vibration Control Plan shall be prepared by a qualified professional, identify the proximity and sensitivity of nearby structures, and include measures sufficient to reduce vibration below levels before the aforementioned limits.

Noise-4 Mixed-use developments shall be evaluated on a case-by-case basis to identify and avoid the generation of potentially significant noise levels on existing and potential future

sensitive land uses. Where avoidance is not feasible, noise impacts shall be mitigated by measures including, but not limited to, operation limitations on noise generation activities (e.g., time of day, volume), relocation of noise generating source(s), and/or use of noise attenuation measures such as acoustical enclosures and sound barriers.

Noise-5 In order to maintain compliance with Hayward Noise Ordinance §4-1.03.4, development that includes demolition and/or construction activity exceeding 86 dBA outside of the property plane shall be carried out in accordance with a Construction Noise Logistics Plan approved by the Development Services Director or Designee pursuant to a Conditional Noise Permit authorized in accordance with Hayward Noise Ordinance §4-1.04.

A Construction Noise Logistics Plan shall specify the hours of construction, noise and vibration minimization measures, posting or notification of the method of construction and schedules, and designation of a noise disturbance coordinator who would respond to neighborhood complaints. Additionally, a Construction Noise Logistics Plan shall include measures required to be in place prior to the start of construction, and implemented during construction to reduce noise impacts on neighboring residents and other uses. A typical construction noise logistics plan would include, but not be limited to, the following measures to reduce construction noise levels as low as practical:

- Utilize 'quiet' models of air compressors and other stationary noise sources where technology exists;
- Equip all internal combustion engine- driven equipment with mufflers, which are in good condition and appropriate for the equipment;
- Locate all stationary noise-generating equipment, such as air compressors and portable power generators, as far away as possible from adjacent land uses;
- Locate staging areas and construction material areas as far away as possible from adjacent land uses;
- Prohibit all unnecessary idling of internal combustion engines;
- If impact pile driving is proposed, multiple-pile drivers shall be considered to expedite construction. Although noise levels generated by multiple pile drivers

would be higher than the noise generated by a single pile driver, the total duration of pile driving activities would be reduced.

- If impact pile driving is proposed, temporary noise control blanket barriers shall shroud pile drivers or be erected in a manner to shield the adjacent land uses. Such noise control blanket barriers can be rented and quickly erected.

- If impact pile driving is proposed, foundation pile holes shall be pre-drilled to minimize the number of impacts required to seat the pile Pre-drilling foundation pile holes is a standard construction noise control technique. Pre-drilling reduces the number of blows required to seat the pile. Notify all adjacent land uses of the construction schedule in writing;

- Designate a "disturbance coordinator" who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and will require that reasonable measures warranted to correct the problem be implemented. Conspicuously post a telephone number for the disturbance coordinator at the construction site and include it in the notice sent to neighbors regarding the construction schedule.

Analysis of the Proposed Project

Noise Exposure or Levels in Excess of Local Standards: The City's General Plan sets forth interior and exterior noise levels that are considered acceptable for different land uses. The City of Hayward Municipal Code sets maximum allowed noise levels near different land uses that include residential, commercial and industrial, and public property. The analysis below focuses on the interior and exterior noise levels that would be experienced on the project site from nearby vehicular traffic noise and other mobile and stationary sources.

Interior Noise Levels at the Project Site: The City's General Plan policies establish a maximum acceptable interior noise level of 45 dbA L_{dn} for new residences. As part of the project design and as required by **MBCSP FEIR Mitigation Measures Noise-1a** through **Noise-1c**, an acoustical study was prepared for the proposed project that assessed the design characteristics needed to maintain interior noise levels in the residential buildings on the project site to be below 45 dBA L_{dn} (Bollard Acoustical Consultants 2016). The acoustical study recommendations included windows with a minimum STC rating of 32 for Buildings 22 through 27 and forced-air mechanical ventilation in all residences. The acoustical study also

recommended minimum STC rating of 32 for hotel bedroom windows facing Mission Boulevard. These recommendations have been incorporated into the project design.

In addition to the acoustic study described above, as part of this Addendum, a noise study (**Appendix G**) was prepared to evaluate the proposed project's potential noise impacts. The analysis provided below is based on the noise study.

Based on the noise study, the noise environment at the site and in the surrounding areas is dominated by the vehicular traffic along Mission Boulevard and BART trains. Local traffic along Torrano Avenue and Berry Avenue, as well as occasional overhead aircraft associated with Hayward Executive Airport and Oakland International Airport also contribute to the noise environment in the area. There are no stationary noise sources in the project vicinity. Based on the noise study, hotel bedrooms facing Mission Boulevard would be exposed to exterior noise levels ranging from 70 to 72 dBA L_{dn}. Hotel bedrooms along northwestern and southeastern façades would be exposed to future exterior noise levels ranging from 67 to 72 dBA L_{dn}. The southwestern hotel façade would be mostly shielded from traffic noise along Mission Boulevard. However, upper floors of the hotel would have direct line-of-sight to the BART tracks and would be exposed to future exterior noise levels of less than 60 dBA L_{dn}. Assuming standard construction materials, the projected interior noise levels for the proposed hotel would potentially be as high as 50 dBA L_{dn} in the rooms facing Mission Boulevard. Interior noise levels in rooms facing the BART tracks would be below 45 dBA L_{dn} and as high as 48 dBA L_{max}. As noted above, the proposed project would incorporate the design features recommended as part of the acoustical study (i.e., windows with a minimum STC of 32 for the rooms facing Mission Boulevard). Therefore, interior noise levels in the hotel rooms adjacent to Mission Boulevard would be at or below 45 dBA Ldn and would not exceed the City's threshold for interior noise level.

Similarly, interior noise level in the proposed townhomes would be below 45 dBA Ldn and would not exceed the City's threshold. Based on the noise study, the second and third floors of Buildings 1 to 5 would be exposed to the traffic noise along Mission Boulevard at levels up to 65 dBA Ldn. Buildings 6 to 9 would be exposed to future exterior noise levels at or below 60 dBA Ldn. Buildings 22 through 27 would be located adjacent to the BART tracks would be exposed to future exterior noise levels up to 69 dBA L_{dn} and up to 84 dBA L_{max}. The end units in these buildings located farthest from the tracks would be exposed to future exterior noise levels up to 63 dBA L_{dn} and up to 78 dBA L_{max}. Buildings 20 and 21 would be exposed to future exterior noise levels at or below 60 dBA L_{dn} and maximum instantaneous noise levels up to 75 dBA L_{max}. The remaining townhome units located on the interior of the site and along Drive Aisle C would be adequately shielded from excess noise levels. These units would be exposed to future exterior noise levels at or below 60 dBA L_{dn} and up to 70 dBA L_{max}. As noted above, recommendations of the acoustical study would be incorporated into the project design. Windows in

Buildings 22 through 27 would have a minimum STC rating of 32 and all townhomes would have forced-air mechanical ventilation. With the incorporation of these design features, interior noise levels in the proposed townhomes would be at or below the City's interior noise threshold of 45 dBA L_{dn}.

Exterior Noise Levels at the Project Site: The City's General Plan establishes policies for noise control in outdoor common areas for residential infill development along major corridors such as Mission Boulevard. The proposed project's outdoor common areas for which the General Plan's noise policy would apply are open space/urban farm area that includes a community garden, children's climbing rocks, table seating, benches, and an outdoor kitchen. The City's General Plan establishes a threshold of L_{dn} of 70 dBA as the maximum acceptable exterior noise level for the project's outdoor common areas. As shown on **Figure 4-3, Proposed Site Plan** these areas would be located between Buildings 2 and 3, between Buildings 4 and 5, and between Buildings 6, 7, 10, and 11. Based on the noise study prepared for the proposed project, future exterior noise levels at these proposed common outdoor areas would be at or below 65 dBA $L_{dn.}$ Therefore, noise levels at the proposed outdoor common areas of the project site would not exceed the City's threshold of 70 dBA L_{dn} exterior noise level requirements for properties along the Mission Boulevard corridor.

Similar to the conclusion in the MBCSP FEIR, noise exposures at the project site would not exceed the applicable standards. This impact would be less than significant. No new mitigation is required.

Ground Vibration from Rail Operations: As required by **MBCSP FEIR Mitigation Measure Noise-2a**, potential vibration impacts associated with the proximity of the project site to rail lines were evaluated and documented in the noise study (**Appendix G**). Vibration criteria defined by the U.S. Department of Transportation, Federal Transit Administration and adopted by the City of Hayward set the vibration threshold of 72 VdB (vibration decibels) to evaluate the effect of "frequent events" (such as the BART daily trips) on residential land uses. The nearest proposed residential buildings would have setbacks of approximately 65 feet from the edge of the adjacent BART tracks. The maximum vibration level measured at this distance from the edge of the BART tracks was 65 VdB, which is below the 72 VdB threshold level. Based on the noise study, future occupants of the residential building close to the BART tracks may perceive the vibration. However, vibration controls would not be needed because the threshold would not be exceeded. Similar to the MBCSP FEIR conclusion, ground vibration at the project site from nearby BART trains would not exceed FTA thresholds. This impact would be less than significant. No new mitigation is required.

Ground Vibration from Construction Operations: Construction activities would include site demolition, preparation work, foundation work, and new building framing and finishing. Based on the noise study, construction of the project may generate perceptible vibration when heavy equipment or impact tools

(e.g., jackhammers, hoe rams) are used. The proposed project would not require pile driving, which can cause excessive vibration. In addition, no ancient buildings or buildings that are documented to be structurally weakened are known to be located on or to adjoin the project site. Analysis of ground vibration during project construction evaluated potential structural damage to buildings considered structurally sound, but where structural damage is a major concern, which would include older residences built with conventional materials. A conservative limit of 0.3 in/sec PPV was used to evaluate the potential vibration impacts on these buildings.

Project construction activities, such as drilling, the use of jackhammers, rock drills and other high-power or vibratory tools, and rolling stock equipment (tracked vehicles, compactors, etc.) may generate substantial vibration in the immediate vicinity. Vibration levels would vary depending on soil conditions, construction methods, and equipment used. Ground vibration during construction could be perceived at the multi-family residences and commercial building located between 5 and 15 feet to the northwest of the project site, and could range between 0.37 in/sec PPV at 15 feet and 1.23 in/sec PPV at 5 feet. Ground vibration level at the commercial buildings located between approximately 50 to 100 feet southeast of the project site would not exceed 0.1 in/sec PPV. At the multi-family residences located approximately 200 feet southwest of the project site, opposite the BART tracks, ground vibration levels would be at or below 0.02 in/sec PPV during construction. Ground vibration levels would be at or below 0.05 in/sec PPV at commercial buildings located 90 to 135 feet to the northeast. As described under **Section 4.12, Proposed Project's Best Management Practices**, best management practices of the proposed project would include the following:

- Compaction activities would not be conducted using a vibratory roller within 20 feet of adjacent residences. In such areas, compaction would be performed using smaller hand tampers.

- Demolition, earth-moving, and other ground-impacting operations would use the smallest equipment feasible to complete the work. The use of large bulldozers, hoe rams, drill-rigs would be avoided within 20 feet of the existing adjacent residences.

- Demolition activities would not involve the dropping of heavy objects within 20 feet of adjacent residences.

Based on the noise study, ground vibration impacts associated with the construction of the proposed would be at or below 0.1 in/sec PPV with the implementation of the best management practices listed above. Therefore, vibration levels associated with project construction would be below the threshold of 0.3 in/sec PPV. **MBCSP FEIR Mitigation Measure Noise-2b** would not be applicable to the proposed project because it only applies to projects that would include pile driving activities. Therefore, impacts of

the proposed project associated with ground vibration during construction would be less than significant. No new mitigation is required.

Permanent Noise Increase Associated with Traffic: Existing traffic data and 2035 Cumulative Plus Project traffic data were used to evaluate the noise increase due to the traffic associated with the proposed project. According to the City's General Plan Noise Element, mitigation measures would be required for projects that would cause the ambient noise level to increase by three (3) dB(A) or more at an existing residential area. The future noise environment at the project site would continue to result primarily from vehicular traffic along Mission Boulevard and BART trains passing along the adjacent tracks. Based on the noise study, compared to the existing traffic volumes along the roadways in the project vicinity, there would be a one (1) dBA L_{dn} noise level increase along all roadway segments in the site vicinity under the Existing Plus Project Conditions. Therefore, the proposed project would not result in a substantial increase in traffic volumes and associated noise levels, and the impact due to a permanent noise increase associated with the project's traffic would be less than significant. No new mitigation is required.

The City's General Plan Noise Element notes that a significant cumulative impact would occur if two criteria are met: 1) the cumulative traffic noise level increase is 3 dBA L_{dn} or greater for future levels exceeding 60 dBA L_{dn} or is 5 dBA L_{dn} or greater for future levels at or below 60 dBA L_{dn}; and 2) the project would make a "cumulatively considerable" contribution to the overall traffic noise increase. A "cumulatively considerable" contribution is defined as an increase of 1 dBA L_{dn} or more attributable solely to the proposed project. Based on the noise study, assuming a cumulative traffic noise increase of at least 3 dBA L_{dn} or more in 2035 Cumulative Plus Project conditions, the project's contribution would be less than 1 dBA L_{dn} Therefore, the proposed project would not make a cumulatively considerable contribution to the increased noise levels. This impact would be less than significant. No new mitigation is required.

Substantial Permanent Noise Increase Associated with Mixed-Use Development: Section 4-1.03.1 of the City's Municipal Code limits noise levels received on the property plane of residential land uses to 70 dBA L_{eq} during daytime hours (between 7:00 a.m. and 9:00 p.m.) and 60 dBA L_{eq} during nighttime hours (between 9:00 p.m. and 7:00 a.m.). During daytime, existing ambient noise levels at the project site range from 54 to 62 dBA $L_{eq.}$ At night, existing ambient noise levels range from 46 to 58 dBA L_{eq} at the project site.

As required by **MBCSP FEIR Mitigation Measure Noise-4**, noise levels generated as a result of the proposed project were evaluated. Mechanical equipment that include air conditioners and ventilation equipment associated with the proposed townhome buildings would be installed on the ground near the end of each building row as shown in **Figure 4-3, Proposed Site Plan**. Based on the noise study, the highest noise levels would result from Buildings 6, 10, and 14 located along the northern boundary of the

project site adjacent to existing noise-sensitive receptors. Noise generated from these buildings would be 57 dBA L_{eq} at eight feet. Assuming mechanical equipment would be installed at the northern end of Building 6, 10, and 14, the distance between the equipment and adjacent existing residences would be approximately 15 feet. At this distance, the combined noise levels of the buildings' mechanical equipment would be 52 dBA L_{eq}. This would be below the City's daytime or nighttime threshold. Since the noise levels for typical air conditioning or ventilation units would fall within the range of existing ambient conditions and would not exceed the City's noise limits, the proposed townhomes are not expected to significantly increase the ambient noise level at the nearby sensitive receptors.

The nearest noise-sensitive receptors to the proposed hotel would be the existing residences located at approximately 250 feet to the northwest of the project site and the future proposed project townhomes at approximately 50 feet southwest of the proposed hotel. Mechanical and electrical rooms for the proposed hotel would be located on the ground floor of the hotel at approximately 50 feet from the proposed fence that would separate the hotel from the residential project component. Both the mechanical and electrical rooms would be enclosed, providing adequate noise shielding. Additionally, solar panels are proposed for the rooftop of the hotel. However, solar panels do not generate noise, and the transformers that are associated with solar panels typically result in very low levels of noise. Therefore, the noise levels from the rooftop equipment would not be audible above ambient noise levels. Therefore, mechanical equipment noise generated at the hotel would not exceed the existing ambient noise levels or the City's thresholds at the nearest residential land use.

Truck deliveries to the small retail shops and hotel would have the potential to generate noise. Based on the size of the commercial retail uses and the proposed hotel, they would be serviced by small vendor trucks. Maximum noise levels generated by vendor trucks would range from 65 to 70 dBA L_{max} at a distance of 50 feet. The proposed delivery location would be back-door access from the enclosed parking lots, which would provide shielding for the nearest existing residence and for the adjacent proposed townhomes.

Other project activities such as the hotel parking lot and the residences' common open space areas would generate noise that would be typical of common urban uses and would not be discernible from the existing ambient noise associated with the traffic along Mission Boulevard and the BART trains. Therefore, the proposed mixed-use development would comply with the City's noise policies and would result in a less-than-significant impact associated with permanent noise increase. No new mitigation is required.

Temporary or Periodic Noise Increase: As noted in **Section 4.11, Project Construction**, project demolition and construction activities would take approximately 24 months. Construction activities would include

demolition, excavation, grading, trenching, building construction, paving, and architectural coating. During each stage of demolition and construction, there would be a different mix of equipment. Noise levels would vary based on the noise generated by various pieces of construction equipment, the timing and duration of noise-generating activities, and the distance between demolition and construction noise sources and noise-sensitive areas.

The nearest existing residential structures are located within 10 to 15 feet of the project's northwest boundary. The daytime ambient noise levels of these residences range from 54 to 62 dBA L_{eq}. Other residential land uses are located approximately 200 feet to the southwest and 190 feet to the northeast of the project site. These residences have daytime ambient noise levels ranging from 63 to 68 dBA L_{eq}. Commercial land uses located approximately five feet to the northwest and 90 to 135 feet northeast of the project site have daytime ambient levels ranging from 63 to 68 dBA L_{eq}. Daytime ambient noise levels range from 54 to 68 dBA L_{eq} at commercial land uses located 50 to 100 feet southeast of the project site.

Based on the noise study, the highest maximum noise levels generated by project demolition and construction would typically range from about 80 to 90 dBA L_{max} at a distance of 50 feet from the noise source. Typical hourly average construction-generated noise levels for residential mixed-use developments are about 81 to 88 dBA Leq measured at a distance of 50 feet from the center of the site during busy construction periods (e.g., earth moving equipment, impact tools, etc.).

Based on the noise study, noise levels would exceed 60 dBA L_{eq} at the nearby residences and 70 dBA L_{eq} at the nearby commercial uses, and would exceed ambient conditions by more than 5 dBA L_{eq} throughout the project construction. Therefore, construction noise for the proposed project is expected to exceed 60 dBA L_{eq} and exceed ambient levels at the nearby residences by more than 5 dBA L_{eq} for a period of more than one year, and therefore, expose noise-sensitive receptors to construction noise exceeding the City's thresholds.

Construction activities would be conducted in accordance with the provisions of the City's General Plan and Municipal Code, which limits temporary construction work between the hours of 7:00 a.m. and 7:00 p.m. Monday through Saturday and 10:00 a.m. to 6:00 p.m. on Sundays and holidays. **MBCSP FEIR Mitigation Measure Noise-5** would apply to the proposed project, which requires preparation of a Construction Noise Logistics Plan approved by the Development Services Director or Designee pursuant to a Conditional Noise Permit authorized in accordance with Hayward Noise Ordinance §4-1.04. Similar to the Specific Plan, implementation of **MBCSP FEIR Mitigation Measure Noise-5** would reduce the project's temporary noise impact associated with demolition and construction. In addition, **MBCSP FEIR Mitigation Measure Noise-4** would apply to the proposed project. **MBCSP FEIR Mitigation Measure Noise-4** provides a listing of supplemental measures likely to be necessary for the proposed project, to be

incorporated into construction plans and implemented during all phases of construction activity to minimize the exposure of neighboring properties to construction noise. With implementation of **MBCSP FEIR Mitigation Measures Noise-4 and Noise-5**, the impact of the proposed project's construction noise would be less than significant. No new mitigation is required.

Public and Private Airport Noise: Hayward Executive Airport is a city-owned, public-use airport located approximately 2.1 miles west of the project site, and Oakland International Airport is a public-use airport owned by the Port of Oakland that is located approximately 8.5 miles northwest of the project site. Based on the noise study, although aircraft-related noise could occasionally be audible at the project site, the dominant noise sources would be vehicular traffic and BART trains, and noise from aircraft would not substantially increase ambient noise levels. The project site lies outside the airport influence area of both airports, as established in the Hayward Executive Airport Land Use Compatibility Plan of 2012 and the Oakland International Airport Land Use Compatibility Plan of 2010. Exterior and interior noise levels resulting from aircraft would be compatible with the proposed project. Similar to the conclusion in the MBCSP FEIR, the proposed project would have no noise impact associated with public or private airport noise. No mitigation is required.

Cumulative: The cumulative noise impacts of the proposed project are adequately addressed in the analysis above. As the analysis of the proposed project indicates, under 2035 Cumulative Plus Project conditions, the project's contribution to cumulative traffic noise level would be less than 1 dBA Ldn Therefore, the proposed project would not make a cumulatively considerable contribution to the increased noise levels. This impact would be less than significant impact.

Changes in Circumstances and/or Substantial New Information

Since certification of the MBCSP FEIR, there have been no changes in circumstances or new information that would alter the conclusions of the MBCSP FEIR with respect to noise impacts such that additional environmental review would be triggered.

Findings

For reasons stated above, less-than-significant noise impacts would result from implementation of the proposed project. The potential noise impacts of the proposed project are adequately analyzed in the MBCSP FEIR. No new or substantially increased significant impacts would result from the proposed project beyond those discussed in MBCSP FEIR.

5.13 Population and Housing

	Potentially Significant New Impact	Less than Significant New Impact with Mitigation	Less than Significant New Impact	Impact Fully Analyzed in the MBCSP FEIR
POPULATION AND HOUSING – Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

MBCSP FEIR Conclusions

Substantial Population Growth: The Specific Plan was developed, in part, to enable the City of Hayward to accommodate the City's share of regional population growth between 2010 and 2035. Under the Specific Plan, this would be accomplished by directing much of the future residential and mixed-use development within the City toward those areas best served by public transit (Downtown Hayward BART Station, South Hayward BART Station, AC Transit regional and local bus routes) and existing infrastructure (roadways, water, sewer, stormwater, schools, etc.). Under the Specific Plan, 1,883 new residential units are estimated to be built within the Mission Boulevard Corridor area. The MBCSP FEIR found that this could result in a population increase of up to approximately 5,931 people.[14] According to the MBCSP FEIR, implementation of the Specific Plan would not induce population growth, since new residential

[14] Assuming continuation of average of 3.15 persons per household per California Department of Finance E-5 Population Estimate dated January 1, 2012 (see http://www.dof.ca.gov/research/demographic/reports/estimates/e- 5/2011-20/view.php).

development under the plan would instead be intended to accommodate the City's portion of the region's anticipated population growth, and would not involve the extension of new infrastructure or public services to undeveloped areas to support new residential development. The MBCSP FEIR concluded that no impact would occur and that no mitigation is required.

Displace Housing: Generally, the Specific Plan would put into place policies and regulations that intend to encourage the development and redevelopment of various land uses, including residential dwellings. The MBCSP FEIR found that existing housing units in the plan area that might be displaced by development under the Specific Plan would be replaced by residential development at higher densities, and would not necessitate the development of replacement housing elsewhere. The MBCSP FEIR concluded that with replacement housing available within the Specific Plan area, there would be no displacement of existing residents within that area. The MBCSP FEIR concluded that implementation of the Specific Plan would result in a less-than-significant impact associated with displacement of housing, and that no mitigation is required.

Analysis of the Proposed Project

Population Growth: The proposed project would include the construction of up to 140 townhomes. As the average household size in the City of Hayward is currently 3.22 persons, an estimated 451 new residents would occupy the proposed townhomes (DOF 2016).[15] As mentioned above, the MBCSP FEIR found that total population growth within the MBCSP is anticipated to increase by 5,931 people between the years 2010 and 2035. The proposed project's population would make up 7.6 percent of the estimated 2035 population increase. Although the estimated project population is increased by 10 more residents when using the updated average household size of 3.22 persons, the change would be minor and the proposed project's population increase would still be within the planned Specific Plan growth, and would not require the extension of new infrastructure or public services.

Although a hotel component is also planned for the site, hotel guests would only be temporarily in the area, and would not significantly increase the City's population. The hotel would necessitate approximately 28 full-time employees, although it is anticipated that only approximately15 employees would work per shift. Approximately 19 full-time employees would work in the proposed retail space but only about 10 employees would be working per shift. The townhomes would require gardeners to maintain the landscaping about twice a week. However, given the nature of the urban setting and type of

15 To provide an up to date analysis, the average size of 3.22 persons per household for the City of Hayward was used per the California Department of Finance E-5 Population Estimate dated May 1, 2016. Based on the current average household size, the number of residents would have 10 more residents than estimated using the 3.15 average household size used in the MBCSP FEIR.

anticipated employment opportunities, hotel, retail, and townhome employees are presumed to already be living in the project area, and thus their employment would not influence Hayward's total population.

As such, the increase in population attributed to the proposed project would be consistent with the growth projected in the MBCSP FEIR. Similar to the conclusions in the MBCSP FEIR, the proposed project would have no impact on population growth. No new mitigation is required.

Displacement of Housing and People: One single-family residence, proposed for demolition, currently occupies the fourth parcel of the project site at Berry Avenue. However, as the unit is currently vacant, its demolition would not displace any persons nor necessitate the construction of replacement housing elsewhere. The proposed project would develop the project site at Berry Avenue with 17 townhomes. Thus, the project would have no impact with regard to displacement of housing or people. No new mitigation is required.

Cumulative: Cumulative impacts from the projected development in the City of Hayward, including the MBCSP development, are evaluated in the 2040 General Plan EIR. The proposed Mission Crossings project is consistent with the MBCSP and is therefore an element of the growth analyzed in the 2040 General Plan EIR. That EIR concluded that the cumulative impacts related to population and housing would be less than significant. All projects within the City would be consistent with the projected growth under the 2040 General Plan, which would ensure that cumulative impacts associated with population and housing would be less than significant. Furthermore, as the analysis above shows, the proposed project's impacts related to population and housing would be less than significant. Therefore, the proposed project would not make a cumulatively considerable contribution to any significant cumulative impact with respect to population and housing.

Changes in Circumstances and/or Substantial New Information

Since certification of the MBCSP FEIR, there have been no changes in circumstances or new information that would alter the conclusions of the MBCSP FEIR with respect to population and housing impacts such that additional environmental review would be triggered.

Findings

The potential population and housing impacts of the proposed project are adequately analyzed in the MBCSP FEIR. The proposed project would not result in new or substantially increased significant impacts beyond those discussed in MBCSP FEIR. No new mitigation is required.

5.14 Public Services

	Potentially New Significant Impact	Less than Significant New Impact with Mitigation	Less than Significant New Impact	Impact Fully Analyzed in the MBCSP FEIR
PUBLIC SERVICES				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, 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 public services:				
i) Fire protection?	☐	☐	☐	☒
ii) Police protection?	☐	☐	☐	☒
iii) Schools?	☐	☐	☐	☒
iv) Parks?	☐	☐	☐	☒
v) Other governmental services?	☐	☐	☐	☒

MBCSP FEIR Conclusions

Fire Protection: The Specific Plan does not propose any new or physically altered facilities related to the Hayward Fire Department (HFD). The MBCSP FEIR found that implementation of the Specific Plan would not result in substantial adverse physical impacts associated with the provision of new or physically altered HFD related facilities and no impact would occur, and that no mitigation is required.

Police Services: The MBCSP FEIR found that implementation of the Specific Plan would not propose any new or physically altered facilities related to the Hayward Police Department (HPD). The MBCSP FEIR concluded that implementation of the Specific Plan would not result in substantial adverse physical impacts associated with the provision of new or physically altered HPD related facilities and no impact would occur, and that no mitigation is required.

Schools: Implementation of the Specific Plan would not propose any new or physically altered school facilities. The MBCSP FEIR found that implementation of the Specific Plan would not result in substantial adverse physical impacts associated with the provision of new or physically altered school facilities.

However, it would generate additional students which, in turn, would put additional demand on schools operated by the Hayward Unified School District. The MBCSP FEIR estimated that implementation of the Specific Plan would generate 942 new students. The MBCSP FEIR concluded that payment of development fees, in accordance with State Law, would be deemed sufficient to provide and maintain an acceptable service ratio for Specific Plan generated students and a less-than-significant impact would occur, and that no mitigation is required.

Analysis of the Proposed Project

Fire Protection: The proposed project is within the growth projected under the Specific Plan. Therefore, similar to the conclusion of the MBCSP FEIR, the proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered HFD facilities. No new mitigation is required.

Police Services: The proposed project is within the growth projected under the Specific Plan, and the project would not require the provision of new or physically altered police facilities. Similar to the MBCSP FEIR conclusion, the proposed project would not result in a substantial adverse impact associated with the provision of new or physically altered police facilities. No new mitigation is required.

Schools: As noted in the MBCSP FEIR, with a population increase of 5,931 people the Specific Plan would result in 941 new students. With a population of 451 people, the proposed project would generate 72 of the 941 new students in accordance with applicable plan. Development fees per Government Code §65995 (b) would apply to the proposed project. Similar to the MBCSP FEIR conclusion, the proposed project would result in a less-than-significant impact on schools. No new mitigation is required.

*Cumulativ*e: Cumulative impacts from the projected development in the City of Hayward, including the MBCSP development, are evaluated in the 2040 General Plan EIR. The proposed Mission Crossings project is consistent with the MBCSP and is therefore an element of the growth analyzed in the 2040 General Plan EIR. That EIR concluded that the cumulative impacts related to public services would be less than significant. All projects within the City would be consistent with the projected demand for public services under the 2040 General Plan, which would ensure that cumulative impacts associated with public services would be less than significant. Furthermore, as the analysis above shows, the proposed project's impacts related to public services would be less than significant. Therefore, the proposed project would not make a cumulatively considerable contribution to any significant cumulative impact with respect to public services.

Changes in Circumstances and/or Substantial New Information

Since certification of the MBCSP FEIR, there have been no changes in circumstances or new information that would alter the conclusions of the MBCSP FEIR with respect to public service impacts such that additional environmental review would be triggered.

Findings

The potential public services impacts of the proposed project are adequately analyzed in the MBCSP FEIR. The proposed project would not result in new or substantially increased significant impacts beyond those discussed in MBCSP FEIR. No new mitigation is required.

5.15 Recreation

	Potentially Significant New Impact	Less than Significant New Impact with Mitigation	Less than Significant New Impact	Impact Fully Analyzed in the MBCSP FEIR
RECREATION – Would the project:				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	☐	☐	☐	☒

MBCSP FEIR Conclusions

Deterioration of Parks and Recreational Facilities: The MBCSP FEIR found that new residents and employees could be expected to utilize park and recreational facilities located both inside and outside of the Specific Plan area. However, the MBCSP FEIR concluded that the increase would not result in substantial physical deterioration of such facilities since existing park acreage in Hayward exceeded the five (5) acre per 1,000 population standard specified in the Hayward General Plan and because new development would be expected to construct new park facilities and/or contribute in-lieu fee payments for such facilities. The MBCSP FEIR concluded that along with existing park facilities, the payment of required park dedication in-lieu impact fees to the City of Hayward in combination with designation of new park and open space lands through General Plan and zoning designation changes, implementation of the Specific Plan would

meet City and Hayward Area Recreation and Park District (HARD) park requirements. Therefore, the MBCSP FEIR found that implementation of the Specific Plan would result in less-than-significant impact associated with physical deterioration of existing recreational facilities, and that no mitigation is required.

Construction and/or Expansion of Recreational Facilities with Adverse Physical Effects: The Specific Plan does not include or identify the details of specific recreational facilities to be developed. The Specific Plan does, however, provide General Plan and Zoning Map designations intended to retain and preserve existing recreational facilities as well as lead to the development of new recreational facilities at properties not presently dedicated for development of public parkland. The MBCSP FEIR concluded that implementation of the Specific Plan would not, through the application of General Plan and Zoning Map changes, result in an adverse physical effect on the environment, as related to recreational facilities. No impact would occur and no mitigation is required.

Analysis of the Proposed Project

Deterioration of Parks and Recreational Facilities: The proposed project is within the growth projected under the Specific Plan. However, as mentioned above, existing park acreage in Hayward exceeds the five (5) acre per 1,000 population requirement. The proposed project would add 451 new residents. In accordance with the Hayward Municipal Code Article 16, Chapter 10, the proposed project would be required to dedicate 2.25 acres of new parkland upon implementation or pay a required park dedication in-lieu impact fee. The proposed project would include 38,700 square feet of common open space. In addition, the proposed project would comply with Hayward Municipal Code Article 16, Chapter 10 by paying the required park dedication in-lieu impact fees to the City of Hayward. Therefore, similar to the MBCSP FEIR conclusion, the proposed project's impact associated with park and recreation facilities would be less than significant. No new mitigation is required.

Construction and/or Expansion of Recreational Facilities with Adverse Physical Effects: The proposed project does not include the construction or expansion of parks. In compliance with the Specific Plan, the proposed project would include new common open spaces, which would be available for use by project residents and others, thereby reducing, to a certain degree, impacts on other existing recreational facilities. Therefore, similar to the conclusion of the MBCSP FEIR, the proposed project would have no impact related to recreational facilities. No new mitigation is required.

Cumulative: Cumulative impacts from the projected development in the City of Hayward, including the MBCSP development, are evaluated in the 2040 General Plan EIR. The proposed Mission Crossings project is consistent with the MBCSP and is therefore an element of the growth analyzed in the 2040 General Plan EIR. That EIR concluded that the cumulative impacts related to parks and recreational

facilities would be less than significant. All projects within the City would have to comply with relevant policies and programs to ensure adequate parks and recreation facilities occur over time. Furthermore, as the analysis above shows, the proposed project's impacts related to parks and recreational facilities would be less than significant. Therefore, the proposed project would not make a cumulatively considerable contribution to any significant cumulative impact with respect to parks and recreational facilities.

Changes in Circumstances and/or Substantial New Information

Since certification of the MBCSP FEIR, there have been no changes in circumstances or new information that would alter the conclusions of the MBCSP FEIR with respect to impacts on recreational facilities such that additional environmental review would be triggered.

Findings

The potential recreation impacts of the proposed project are adequately analyzed in the MBCSP FEIR. The proposed project would not result in new or substantially increased significant impacts beyond those discussed in MBCSP FEIR. No new mitigation is required.

5.16 Transportation and Traffic

	Potentially New Significant Impact	Less than Significant New Impact with Mitigation	Less than Significant New Impact	Impact Fully Analyzed in the MBCSP FEIR
TRANSPORTATION/TRAFFIC - Would the project:				
a) Cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	☐	☐	☒

	Potentially New Significant Impact	Less than Significant New Impact with Mitigation	Less than Significant New Impact	Impact Fully Analyzed in the MBCSP FEIR
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☐	☒
f) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☒

MBCSP FEIR Conclusions

Substantial Increase in Traffic: The MBCSP FEIR analyzed the increase in traffic volumes at the following 11 study intersections within the Specific Plan area and nearby locations:

1. Mission Boulevard at Sunset Boulevard
2. Mission Boulevard at A Street
3. Mission Boulevard at B Street
4. Mission Boulevard at C Street
5. Mission Boulevard at D Street
6. Mission Boulevard at Jackson Street-Foothill Boulevard
7. Mission Boulevard at Fletcher Lane
8. Mission Boulevard at Highland Boulevard
9. Mission Boulevard at Carlos Bee Boulevard

10. Mission Boulevard at Berry Avenue

11. Mission Boulevard at Harder Road

Traffic volumes were analyzed under four scenarios: Existing 2012, Existing 2012 plus Project, Cumulative 2035 No Project, and Cumulative 2035 plus Project. The MBCSP FEIR found that all intersections would operate at an acceptable LOS D or better under all scenarios except for three intersections: Mission Boulevard at A Street (under Existing 2012, Existing 2012 plus Project, Cumulative 2035 No Project, and Cumulative 2035 plus Project), Mission Boulevard at Sunset Boulevard (under Cumulative 2035 No Project and Cumulative 2035 plus Project), and Mission Boulevard at D Street (under Cumulative 2035 No Project, and Cumulative 2035 plus Project).[16] The MBCSP FEIR concluded that the significant impacts at the three intersections that would operate at unacceptable levels would be reduced to less-than-significant levels with implementation of **MBCSP FEIR Mitigation Measures Trans-1** through **Trans-3**, which require various improvements at each affected intersection.

Congestion Management Plan – Year 2020: The MBCSP FEIR stated that implementation of the MBCSP would result in significant traffic impacts on the Alameda County Congestion Management Plan (CMP) roadways if it results in any CMP roadway segment to operate at LOS F, or if the roadway segment is already at LOS F under no-project conditions, project trips do not result in more than 5 percent increase in the volume to capacity (V/C) ratio. The analysis found that although Specific Plan implementation would contribute to the increase in PM peak hour volumes at most CMP roadway segments under the Year 2020 Plus Project condition, no roadway segment under the Year 2020 Plus Project condition was projected to operate at an unacceptable LOS nor increase in V/C ratio above 5 percent was projected. The MBCSP FEIR concluded that for the Year 2020 Plus Project condition, implementation of the Specific Plan would result in a less-than-significant impact on CMP roadways, and that no mitigation is required.

Congestion Management Plan – Year 2035: The MBCSP FEIR found that implementation of the Specific Plan would contribute to an increase in PM peak hour volumes at most CMP roadway segments under the Year 2035 Plus Project condition. The MBCSP FEIR found that no roadway segment under the Year 2035 Plus Project condition would operate at an unacceptable LOS nor would there be an increase in V/C ratio above 5 percent. The MBCSP FEIR concluded that for the Year 2035 Plus Project condition,

16 "Levels of service" describes the operating conditions experienced by motorists. Level of service is a qualitative measure of the effect of a number of factors, including speed and travel time, traffic interruptions, freedom to maneuver, driving comfort and convenience. Levels of service are designated "A" through "F" from best to worst, which cover the entire range of traffic operations that might occur. Level of Service (LOS) "A" through "E" generally represent traffic volumes at less than intersection capacity, while LOS "F" represents over capacity and/or significant delays.

implementation of the Specific Plan would result in a less-than-significant impact on CMP roadways, and that no mitigation is required.

Air Traffic Patterns: The MBCSP FEIR found that Specific Plan implementation does not include any component that would, either directly or indirectly, result in a change to air traffic patterns. The MBCSP FEIR concluded that the Specific Plan would have no impact relative to air traffic patterns and safety risks, and that no mitigation is required.

Design Feature Hazard associated with New Thoroughfares: The Specific Plan includes planned new thoroughfares connecting to existing thoroughfares. Implementation of the Specific Plan would require a detailed examination of new thoroughfares through an existing "Precise Plan Lines for Streets" review process. The MBCSP FEIR found that implementation of this review process would ensure that the design of these new roads does not result in a roadway design hazard. Thus, the MBCSP FEIR concluded a less than significant impact would result under this criterion, and that no mitigation measure is required.

Emergency Access: The MBCSP FEIR found that the Thoroughfare Plan and new planned thoroughfares included in the Specific Plan would improve emergency access in the Specific Plan area through the construction of additional paths of ingress and egress that would meet City of Hayward standards. In doing so, implementation of the Specific Plan would enable shorter paths of travel and/or multiple points of access to lots abutting newly constructed thoroughfares. The MBCSP FEIR concluded that the Specific Plan would have no impact related to emergency access, and that no mitigation is required.

Conflict with Pedestrian and Bicycle Facilities: Under the Specific Plan, a number of pedestrian and bicycle connections and enhancements are identified in the Thoroughfare Plan. The MBCSP FEIR found that implementation of the Specific Plan would not conflict with the Hayward Bicycle Master Plan. With regard to the performance and safety of bicycle and pedestrian facilities, implementation of the Specific Plan would require a detailed examination of pedestrian and bicycle facilities, including sidewalks, through an existing "Precise Plan Lines for Streets" review process. The MBCSP FEIR found that implementation of the Specific Plan would not conflict with any plans or policies pertaining to existing or planned pedestrian or bicycle facilities; nor would it decrease the performance or safety of such facilities. The MBCSP FEIR concluded that no impact would result under this criterion and that no mitigation is required.

Conflict with Adopted Policies, Plans, or Programs Supporting Alternative Transportation: New development under the Specific Plan would add new transit trips to the existing bus and rail transit system, including during peak commute hours. The MBCSP FEIR found that increased transit ridership resulting from

implementation of the Specific Plan can be accommodated by existing or projected capacity. The MBCSP FEIR concluded that the impact would be less than significant and that no mitigation is required.

MBCSP FEIR Mitigation Measures

Trans-1 (Restripe on the eastbound approach on A Street at Mission Boulevard and A Street) Convert the eastbound outer left-turn lane into a left-right turn shared lane.

Trans-2 (Cumulative 2035 Plus Project - Mission Boulevard and Sunset Boulevard) Convert the existing left-through-right shared lane into a through-right shared lane on both eastbound and westbound approaches; add a separate left-turn lane on both eastbound and westbound approaches.

Trans-3 (Cumulative 2035 Plus Project - Restripe on the eastbound approach on A Street at Mission Boulevard and A Street) Convert the eastbound outer left-turn lane into a left-right turn shared lane.

Analysis of the Proposed Project

Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system:

Vehicular Traffic

Construction Traffic

Construction vehicles and construction worker vehicles would use Mission Boulevard to access the project site. There would be approximately 13 construction and 33 worker vehicles per day during the site preparation, grading, and trenching phase which would last for about five months. Additional trips from the off-hauling of demolition debris and fill material not reused on-site would occur during the five-month site preparation, grading, and trenching phase. For the remaining phases of construction totaling approximately 19 months, about 43 construction and 328 worker vehicles per day would access the project site. As analyzed below under operational traffic, operation of the proposed project would result in approximately 2,448 net daily trips and would not degrade traffic operations to unacceptable levels. As the number of trips generated under the construction phase would be less than the number of trips generated under the operational phase, traffic impact during construction would be less than that during operation.

Therefore, construction traffic generated by the proposed project would be unlikely to cause a disruption in traffic. Truck movements would typically occur outside of the AM or PM peak hour. In addition,

construction workers would generally leave the site prior to the PM peak hour. For these reasons, temporary traffic impacts during construction would be less than significant. No new mitigation is required.

Operational Traffic

In March 2017, a Traffic Impact Analysis was prepared for the proposed project by Kittelson & Associates and is attached in **Appendix H**. To assess vehicular traffic impact, the traffic study analyzed seven intersections located near the project site, after consulting with City staff. Based on the traffic study, the proposed project would result approximately 2,448 net daily trips, with 206 in the AM peak hour (89 inbound, 117 outbound) and 175 in the PM peak hour (100 inbound, 75 outbound). For purposes of confirming that the project's traffic impacts have been appropriately covered in the MBCSP FEIR and would otherwise not trigger new or more severe significant impacts not previously disclosed, the analysis evaluated traffic impacts for three scenarios: Existing Plus Project Conditions, Interim 2020 Plus Project Conditions, and Cumulative 2035 Plus Project Conditions.

Significance Criteria: At the time of the preparation of the Specific Plan, the standards used to determine whether project-related impacts at signalized intersections would be significant if they would degrade the AM or PM peak hour from an acceptable LOS D (50 seconds/vehicle) or better under No Project Conditions to an unacceptable LOS E or worse under Project Conditions except when LOS E is determined by the City of Hayward as acceptable due to costs of mitigation or when there would be other unacceptable impacts. For intersections operating at LOS F, a project-related impact was considered significant if it would increase the delay per vehicle by 4.0 seconds.

Since then, the City has completed the 2040 General Plan EIR and has revised the significance criteria for evaluation of traffic impact. The traffic analysis prepared for the proposed project was based on the updated significance criteria defined in the City of Hayward 2040. These criteria require intersections to maintain a peak-hour LOS E or better for signalized intersections. The proposed project would have a significant impact on traffic and circulation of signalized intersections if it would degrade traffic operations at the intersections in the AM or PM peak hour from an acceptable LOS E or better under the Existing Conditions to an unacceptable LOS F under Existing Plus Project Conditions. The City's guidelines note that the proposed project would have a significant impact at an intersection operating at LOS F under existing conditions if the addition of project traffic results in an increase of 5.0 seconds or more in the intersection's average control delay. For unsignalized intersections, the proposed project's impact is also evaluated based on the same changes to LOS and delay and whether any of the following is met: Traffic signal warrant, pedestrian signal warrant, or all-way stop warrant. However, according to the City's guidelines, a warrant does not solely constitute a significant impact.

Under Existing Conditions all seven study intersections are reported to operate at acceptable LOS levels that range between LOS A and LOS D. Based on the traffic study, as shown in **Table 7** below, the LOS at all seven intersections would remain unchanged and at acceptable LOS levels under Existing Plus Project and Interim 2020 Plus Project Conditions. Therefore, the proposed project would not exceed the applicable threshold and would result in a less-than-significant traffic impact. **MBCSP FEIR Mitigation Measures Trans-1** through **Trans-3** would not apply to the proposed project because it would not result in a significant traffic impact at the Mission Boulevard and A Street intersection or the Mission Boulevard and Sunset Boulevard intersection. No new mitigation is required.

Table 7
Level of Service Associated with the Proposed Project

	Existing Conditions		Existing Plus Project Conditions		Interim 2020 Conditions		Interim 2020 Plus Project Conditions		2035 Cumulative Conditions		2035 Cumulative Plus Project Conditions	
Intersection	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Mission Boulevard & Orchard Avenue/ Carlos Bee Boulevard	D	C	D	C	D	D	D	D	D	E	E	E
Mission Boulevard & Berry Avenue	B	B	B	B	B	B	B	B	E	C	E	C
Mission Boulevard & Torrano Avenue	A	A	A	A	A	A	A	A	A	A	A	A
Mission Boulevard & Torrano Avenue	A	A	A	A	A	A	A	A	A	A	A	A
Dollar Street & Harder Road	A	A	A	A	A	A	A	A	A	B	A	C
Mission Boulevard & Harder Road	D	D	D	D	E	E	E	E	F	F	F	F
Mission Boulevard & Tennyson Road	C	C	C	C	C	D	C	D	F	E	F	E

Source: Kittelson & Associates, Inc. 2017
LOS based on HCM 2000
LOS and Control delays for unsignalized intersections are presented for average approach

The LOS under the 2035 cumulative conditions were calculated to range between LOS A and LOS F. Under Cumulative 2035 Plus Project Conditions, the LOS at the seven intersections would remain unchanged except for two intersections: Mission Boulevard at Orchard Avenue and Carlos Bee Boulevard and Dollar Street and Harder Road. One intersection, Mission Boulevard and Harder Road, would continue to operate at LOS F under Cumulative 2035 Plus Project Conditions.

At the intersection of Mission Boulevard at Orchard Avenue and Carlos Bee Boulevard, the LOS in the AM peak hour would change from LOS D under the 2035 Cumulative Conditions to LOS E under the Cumulative 2035 Plus Project Conditions. Therefore, the intersection would continue to operate at an acceptable LOS and the cumulative impact of the proposed project at this intersection would not be significant.

At the intersection of Dollar Street and Harder Road, the LOS would change in the PM peak hour from LOS B under the 2035 Cumulative Conditions to LOS C under the Cumulative 2035 Plus Project Conditions. Based on the traffic study, a traffic signal warrant[17] is met for this intersection under Existing Conditions. However, this intersection would continue to operate at acceptable LOS level under Cumulative 2035 Plus Project Conditions. Therefore, the cumulative impact of the proposed project at this intersection would not be significant.

In both AM and PM peak hour, the intersection of Mission Boulevard and Harder Road would operate at LOS F under 2035 Cumulative Conditions and Cumulative 2035 Plus Project Conditions. However, the proposed project's contribution to the delay under Cumulative 2035 Plus Project Conditions would be less than 5 seconds and below the significance threshold during both AM and PM peak hours. Therefore, the proposed project would not result in a significant cumulative impact at this intersection.

In the AM peak hour, the intersection of Mission Boulevard and Tennyson Road would operate at LOS F under 2035 Cumulative Conditions and 2035 Cumulative Plus Project Conditions. However, the proposed project's contribution to the delay under 2035 Cumulative Plus Project Conditions would be less than 5 seconds and below the significance threshold. Therefore, the proposed project would not result in a significant cumulative impact at this intersection.

For all remaining intersections, the proposed project would not cumulatively contribute to the change in LOS. Therefore, cumulative traffic impact associated with the proposed project would be less than significant. No mitigation is required.

Emergency Access: Emergency vehicles, including fire trucks and ambulances, would be able to access the proposed hotel at the project site through the right-turn inbound-only driveway on Mission Boulevard at the northeastern corner of the project site. These vehicles would be able to circulate to the slip lane in front of the hotel building as well as circulate to the rest of the surface drive aisle to the rear of the building.

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17 Traffic signal warrants are standards that provide guidelines in the determination of the need for a traffic signal.

Emergency vehicles, including fire trucks and ambulances, would be able to access the proposed residential area of the project site through the driveway on Torrano Avenue or through the driveway on Berry Avenue. These vehicles would be able to circulate to all the residential buildings through the drive aisles.

As with large delivery trucks, WB-50 trucks[18] were used to portray large fire trucks common in the City of Hayward. Emergency vehicle turning templates were reviewed using AutoTURN software to ensure the emergency vehicles could manage the turning radii. The AutoTURN analysis determined that the proposed site plan would be able to adequately accommodate all emergency vehicles. Thus, similar to the conclusions of the MBCSP FEIR, the proposed project would have no impact associated with emergency access. No new mitigation is required.

Air Traffic Patterns: The proposed project would not include any structures which would significantly affect air traffic patterns. Similar to the conclusion of the MBCSP FEIR, the proposed project would have no impact on air traffic patterns. No new mitigation is required.

Design Feature Hazard associated with New Thoroughfares: The proposed project would not result in the creation of dangerous intersections or other road conditions that would substantially increase roadway hazards in the area. The intersection of Dollar Street and Harder Road currently triggers a peak hour signal warrant; however, this is not associated with the proposed project traffic. Additionally, the project proposes to install additional speed limit signage on both Torrano Avenue and Dollar Street to address proposed new land uses and driveways. Lastly, the proposed project would include caution signage identifying the new project driveway locations on Torrano Avenue and Berry Avenue from the project site. These traffic calming measures proposed on Torrano Avenue, Dollar Street, and Berry Avenue would improve safety and account for the proposed new project driveways.

The angled parking stalls along the one-way slip lane fronting the proposed hotel at the project site are oriented towards the hotel building, allowing for easy access and minimized conflicts between automobiles and pedestrians. A potential conflict could occur at the northeast corner of the hotel site, where vehicles entering the project site at the inbound-only driveway may conflict with vehicles traveling eastbound in the parking aisle at the north side of the project site (making an eastbound right-turn onto the one-way slip lane). Another potential conflict could occur at the southwest corner of the hotel site, where vehicles entering the project site at the driveway on Torrano Avenue may conflict with vehicles traveling westbound in the parking aisle at the south side of the project site. However, to ensure all the potential conflicts listed above would not cause any localized traffic problems, the proposed project

18 WB-50 is a large semitrailer 55 feet long.

would include traffic controls, including stop or yield signs, at these locations to better control traffic conflict and movements between east-west and north-south travel.

The internal circulation within the proposed residential area of the project site would provide adequate access and internal circulation roads. Primary access would be provided via a full access driveway on Torrano Avenue and secondary access would be provided via a full access driveway on Berry Avenue. Drive aisles would provide access to all of the residential buildings and would have adequate width to accommodate two-way traffic. A potential conflict may occur if vehicles want to turnaround in limited space at the end of the drive aisles, where they would have to make multi-turn maneuvers to make a U-turn. Vehicles circulating in the residential drive aisles may choose to exit from either the driveway on Torrano Avenue or the driveway on Berry Avenue.

The proposed project would be required to comply with the City's design standards and the design standards in the *Uniform Fire Code*. Required compliance with these existing standards would prevent hazardous design features and would ensure adequate and safe access. As required by the MBCSP FEIR, the proposed project would be required to complete a detailed examination of new thoroughfares under the existing "Precise Plan Lines for Streets" City's review process. Implementation of this review process would ensure that the design of these new roads does not result in a roadway design hazard and this impact would be less than significant. No new mitigation is required.

Conflict with Pedestrian and Bicycle Facilities: Crosswalks and actuated pedestrian signals are currently provided at all signalized study intersections. Both north and south curb returns along Mission Boulevard would be rebuilt to accommodate the proposed slip lane and would include new accessible ramps to provide better pedestrian access along Mission Boulevard. The intersection of Mission Boulevard and Torrano Avenue (North) consists of a crosswalk on the west side of the intersection. The intersection of Mission Boulevard and Torrano Avenue (South) consists of a crosswalk on the north and east sides of the intersection. The intersection of Dollar Street and Harder Road consists of a crosswalk on the north and south sides of the intersection. Sidewalks are present in both directions at all study intersections.

According to the latest update to the City of Hayward General Plan, Orchard Avenue/Carlos Bee Boulevard is classified as a Class III bicycle route east of Soto Road. There are no sharrows on the pavement, but signage urges bicyclists and drivers to "share the road." Harder Road and Tennyson Road are classified as Class II bicycle lanes.

Due to the nature of the proposed residential and hotel uses, and the area surrounding the project site, pedestrian and bicycle volumes are not expected to change significantly from existing conditions.

Additionally, the project is not expected to generate a high number of pedestrian and bicycle trips. Consistent with the Specific Plan, the proposed project would create a vibrant pedestrian-oriented environment and would foster a safe public realm. Therefore, no adverse effects to pedestrian or bicycle level of service are expected as a result of the proposed project.

Similar to the conclusion of the MBCSP FEIR, the project would not conflict with any plans or policies pertaining to existing or planned pedestrian or bicycle facilities; nor would it decrease the performance or safety of such facilities. No impact would result under this criterion and no new mitigation is required.

Conflict with Adopted Policies, Plans, or Programs Supporting Alternative Transportation: The proposed project would add new transit trips to the existing bus and rail transit system, including during peak commute hours. However, based on the traffic study, the proposed project would not have a significant impact on transit operations on Mission Boulevard beyond the intersection delays described for the vehicular traffic above. Consistent with the Specific Plan, the proposed project would be a mixed-use development near transit facilities and would therefore encourage the use of alternative transportation modes such as transit. Similar to the conclusion in the MBCSP FEIR, increased transit ridership resulting from implementation of the project can be accommodated by existing or projected capacity. Therefore, individual or cumulative transit impacts associated with the proposed project would be less than significant. No new mitigation is required.

Cumulative: The cumulative traffic impacts of the proposed project are adequately addressed in the analysis above. As the analysis of the proposed project indicates, under Cumulative 2035 Plus Project Conditions, all seven study intersections would operate at acceptable LOS. Therefore, cumulative traffic impact associated with the proposed project would be less than significant.

Changes in Circumstances and/or Substantial New Information

Since certification of the MBCSP FEIR, there have been no changes in circumstances or new information that would alter the conclusions of the MBCSP FEIR with respect to traffic and transportation impacts such that additional environmental review would be triggered.

Findings

The potential transportation and traffic impacts of the proposed project are similar to or less than those analyzed in the MBCSP FEIR. For reasons stated above, the proposed project's potential traffic impacts would be less than significant. Therefore, no new or substantially increased significant impacts would result from the proposed project beyond those discussed in 2013 MBCSP FEIR. No new mitigation is required.

5.17 Tribal Cultural Resources

	Potentially Significant New Impact	Less than Significant New Impact with Mitigation	Less than Significant New Impact	Impact Fully Analyzed in the MBCSP FEIR
Tribal Cultural Resources - Would the project:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resource Code section 5020.1(k).	☐	☐	☐	☒
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☐	☒

MBCSP FEIR Conclusions

At the time the MBCSP FEIR was prepared, CEQA did not require an analysis of impacts to tribal cultural resources due to project implementation.

Analysis of the Proposed Project

Historical Resource Listed on the State or Local Register

As detailed in the Built Environment Assessment and **Section 5.5** above, none of the buildings on the project site or properties adjacent to the project site are listed, pending or determined to be eligible for listing on the California Register of Historical Resources. No local, state or federal historically or architecturally significant structures, landmarks, or points of interest have been identified. In addition, none of the project buildings were found to contribute to an eligible historic district defined under the California Register of Historical Resources. Therefore, the proposed project would have no impact on historical resources. No new mitigation is required.

Significance of the Resource to a California Native American Tribe

AB 52 requires that lead agencies consider the effects of projects on tribal cultural resources and conduct consultation with federally and non-federally recognized Native American tribes early in the environmental review process. According to AB 52, it is the responsibility of the tribes to formally request of a lead agency that they be notified of projects in the lead agency's jurisdiction so that they may request consultation. On December 21, 2016, the City of Hayward sent a letter to a Native American tribe, Ione Band of Miwok Indians, identified by the Native American Heritage Commission (NAHC), notifying them of the proposed project. According to AB 52, tribes have 30 days from the receipt of the letter to request consultation with the City of Hayward. No comments were received from the tribe. Having completed the outreach, the City of Hayward has determined that with **MBCSP FEIR Mitigation Measures Cultural-2b** and **Cultural-4**, the proposed project would avoid inadvertent impacts to prehistoric resources and human remains, should they be encountered during excavation and grading, and the proposed project would not affect any known or unknown tribal cultural resources in the area. Thus, the proposed project would not cause a substantial adverse change in the significance of a tribal cultural resource and the impact would be less than significant. As noted under the Cultural Resources discussion above, impact analysis related to tribal cultural resources is provided for informational purposes only in this addendum. No new mitigation is required.

Cumulative: As the analysis above shows, the proposed project's impacts related to tribal cultural resources would be less than significant. Therefore, the proposed project would not make a cumulatively considerable contribution to any significant cumulative impact with respect tribal cultural resources.

Changes in Circumstances and/or Substantial New Information

At the time the MBCSP FEIR was prepared, CEQA did not require an analysis of impacts to tribal cultural resources due to project implementation. AB 52, which was approved in September 2014 and became effective on July 1, 2015, requires that CEQA lead agencies consult with California Native American tribes that are traditionally and culturally affiliated with the geographic area of a proposed project, if so requested by the tribes. A provision of the bill, chaptered in CEQA Section 21084.2, also specifies that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. Therefore, CEQA requires a determination whether the project would cause a substantial adverse change in the significance of a Tribal Cultural Resource as defined in Section 21074. As noted under the Cultural Resources discussion above, impact analysis related to tribal cultural resources is provided for informational purposes only in this addendum.

Findings

The potential impacts to tribal cultural resources from implementation of the proposed project would be less than significant. No new mitigation is required.

5.18 Utilities and Service Systems

	Potentially New Significant Impact	Less than Significant New Impact with Mitigation	Less than Significant New Impact	Impact Fully Analyzed in the MBCSP FEIR
UTILITIES AND SERVICE SYSTEMS - Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new and expanded entitlements needed?	☐	☐	☐	☒
e) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

MBCSP FEIR Conclusions

Water and Wastewater

Exceed RWQCB Wastewater Treatment Requirements: The MBCSP FEIR states that the Hayward Water Pollution Control Facility (WPCF) processes and treats all wastewater collected within the Specific Plan area. As of 2012-13, the facility treated an estimated average of 13.5 million gallons of wastewater per day (mgd) compared to a rated capacity of 16.5 mgd. Implementation of the Specific Plan would incrementally, over time, contribute wastewater flows to the WPCF. However, as stated in the MBCSP FEIR, based on the City of Hayward Public Works Department, the agency which operates and maintains the WPCF, the Specific Plan's contribution would not cause the WPCF to operate above its rated capacity and no impact would occur and that no mitigation was required.

Require New 'Major' Wastewater Conveyance Facilities: With regard to major conveyance lines outside the project area, implementation of the Specific Plan would contribute flows to lines which were deficient under conditions that existed at the time that the MBCSP FEIR was completed. The MBCSP FEIR found that payment of mandatory fees in conjunction with project-related development assures a fair-share contribution towards current and future capital improvement projects to relieve those deficiencies. The MBCSP FEIR concluded that the Specific Plan's impact associated with new wastewater conveyance facilities would be less than significant, and that no mitigation was required.

Require New 'Minor' Wastewater Conveyance Facilities: Some existing sewer lines within the Specific Plan area are smaller than the minimum City standard. The MBCSP FEIR found that future development would, however, have to comply with the mandatory upgrade requirements of Municipal Code Chapter 11, Article 8 (Sanitary Sewer System), and thereby ensure line segments affected by Specific Plan related development are upsized to meet current City standards. The MBCSP FEIR concluded that a less-than-significant impact would occur and no mitigation was required.

Require New Water Conveyance Facilities: The MBCSP FEIR found that although some existing water conveyance lines within the Specific Plan area do not meet the minimum city standards, they would adequately support project-related development, through the incremental upgrade requirements of Municipal Code Chapter 11, Article 2. The MBCSP FEIR concluded that this impact would be less than significant, and that no mitigation was required.

Result in New Water & Wastewater Facilities: Implementation of the Specific Plan would, over time, include the installation of new water and wastewater conveyance lines that would accompany the construction of proposed new thoroughfares. The MBCSP FEIR found that the installation of those lines would largely occur at urbanized properties and, consequently, would not be expected to result in significant impacts, and that no mitigation was required.

Stormwater Drainage Facilities

Require or Result in New or Expanded Stormwater Facilities: Future development within the Specific Plan area may, on a parcel-specific and cumulative basis, increase the impervious area above that existing in the plan area and, thereby, result in increased stormwater flows and/or runoff not meeting treatment requirements, without appropriate on-site controls. The MBCSP FEIR found that the potential for increased flows would be adequately mitigated through mandatory compliance with the City of Hayward's NPDES permit. While improvement to existing facilities through, for example, increased conveyance capacity, may be necessary to accommodate certain future developments, additional new storm water facilities are not necessary to meet treatment requirements. The MBCSP FEIR concluded that the Specific Plan impact associated with stormwater facilities would be less than significant, and that no mitigation was required.

Water Supply

The City of Hayward prepared a Water Supply Assessment (WSA) for the Specific Plan, in accordance with the requirements of SB 610 (City of Hayward 2012). The MBCSP FEIR stated that the WSA deems the existing water supply sufficient to satisfy the demands of the Specific Plan implementation, taking into consideration both existing and planned future uses, under normally single-dry and multiple-dry years. The MBCSP FEIR concluded that the impact would be less than significant. No mitigation is required.

Landfill

Construction Waste: The MBCSP FEIR found that with regard to demolition and construction-related wastes, Specific Plan related development would also be subject to Chapter 5, Article 10 of the Hayward Municipal Code, which requires the submission and approval of a Debris Recycling Statement prior to the commencement of demolition and construction. Increased solid waste resulting from Specific Plan implementation from the construction and occupancy of new dwellings and businesses could be accommodated by the existing disposal services and facilities. The MBCSP FEIR found that while the 75 percent solid waste diversion goal is not being met, compliance would not be mandatory. The MBCSP FEIR concluded that the impact of development under the Specific Plan on landfills would be less than significant, and that no mitigation was required.

Operational Waste: Implementation of the Specific Plan would result in waste generation rates of 10.53 pounds per 1,000 square feet per day for commercial retail uses and 12.23 pounds per dwelling unit per day. The Specific Plan area would rely on the Davis Street Transfer Station in San Leandro which has a daily capacity of 5,600 tons per day. Solid waste would then be transferred to the Altamont Landfill. The

MBCSP FEIR found that Specific Plan related solid waste operations would not exceed the capacity of the Davis Street Transfer Station or the Altamont Landfill, and would not require the construction or expansion of solid waste handling and disposal facilities. The MBCSP FEIR concluded that implementation of the Specific Plan would result a less-than-significant associated with solid waste, and that no mitigation was required.

Cumulative:

Water

The MBCSP FEIR found that increased demand management and/or conservation system-wide over time would result in a surplus in water supply and this impact would be less than significant and that no mitigation was required.

Stormwater

The MBCSP FEIR found that in addition to compliance with NPDES, Specific Plan related development would occur in urbanized areas and primarily involve redevelopment of previously developed properties, so there would be limited change in impervious surface area and stormwater runoff. The MBCSP FEIR concluded that cumulative stormwater impact associated with the Specific Plan would be less than significant impact, and that no mitigation was required.

Wastewater

The MBCSP FEIR stated that the City has determined that Specific Plan related development would not exceed the capacity of the WPCF to treat wastewater in cumulative conditions. The MBCSP FEIR found that although portions of the existing conveyance system are deficient in capacity, the payment of mandatory fees and application of Municipal Code requirements ensure that Specific Plan related effects are mitigated on a fair-share basis. The MBCSP FEIR concluded that the system is adequate to serve past, present, existing, pending and reasonably foreseeable future development projects within the Specific Plan and a less-than-significant impact would occur. No mitigation is required.

Analysis of the Proposed Project

Exceed Wastewater Treatment Requirements: The project site is currently served by the City for purposes of wastewater treatment and conveyance. Upon project operation, additional wastewater would be produced from the residential, retail and hotel components. The additional wastewater would flow through the City's sanitary sewer system to the City's WPCF. The proposed project is within the scale of development and population estimates that were analyzed in the MBCSP FEIR. Therefore, the proposed

project would have a less-than-significant impact associated with wastewater treatment. No new mitigation is required.

Construction of New/Wastewater Treatment Facilities: Existing wastewater mains are currently located within Torrano Avenue and Berry Avenue. Proposed on-site wastewater facilities would connect to existing water mains. All new on-site wastewater infrastructure main improvements would be at a minimum 8-inches in size to comply with the mandatory upgrade requirements of Municipal Code Chapter 11, Article 8, and would connect to sanitary sewer mains in Torrano Avenue or Berry Avenue. In compliance with the MBCSP FEIR, if the sanitary sewer mains in Torrano Avenue or Berry Avenue would need to be upgraded to handle more capacity, the contractor would contribute a fair-share value as determined by the City. Therefore, the proposed project would not result in new or substantially increased impacts on the wastewater system beyond those discussed in MBCSP FEIR. Similar to the MBCSP FEIR, the proposed project would have a less-than-significant impact. No new mitigation is required.

Construction of New Stormwater Drainage Facilities: The project site consists of approximately 89 percent impervious surfaces due to the existing commercial and residential buildings, asphalt drive aisles, and abundant areas of paved surface parking. The project site is currently served by the Alameda Flood Control District for purposes of storm drainage. The remaining 11 percent consists of pervious landscaped areas. The proposed project would increase the amount of pervious area on the project site by approximately 9 percent, for a total pervious area of 1.93 acres. Implementation of the proposed project would comply with applicable NPDES requirements for stormwater quality. Thus, the proposed project would provide approximately 14,375 square feet of treatment area for stormwater runoff generated at the project site. The site runoff would be treated via a bioretention system before entering the public stormwater systems. Stormwater runoff would be directed to multiple bioretention treatment areas throughout the project site that would filter pollutants from stormwater runoff using a combination of vegetation, ponding, permeable planting soil, and a subdrain system. Site runoff would then be directed to the existing 57-inch storm drain, on Torrano Avenue, owned by Alameda County Flood Control and Water Conservation District (ACFCWCD). All walkways within the project site would be sloped to drain into the surrounding landscaping and bioretention ponds. Proposed on-site drainage facilities would be private facilities that would be maintained by the homeowners association. The proposed project would decrease existing impervious area at the project site would be required to design storm drainage facilities to adhere to all applicable requirements and standards, and would thereby not, result in increased stormwater flows and/or runoff. Similar to the conclusion of the MBCSP FEIR, the proposed project would have a less-than-significant impact on stormwater drainage facilities. No new mitigation is required.

Water Supply: The WSA, performed by the City for the Specific Plan, found that the existing and/or anticipated available water supply is sufficient to satisfy the demands of the existing and future buildout of the MBCSP area that includes the project site and the proposed uses. Thus, similar to the conclusions of the MBCSP FEIR, the impact of the proposed project associated with water demand would be less than significant. No new mitigation is required.

Landfill's Capacity to Meet Projected Solid Waste Disposal Needs:

Construction Waste:

Construction solid waste resulting from the proposed project would be within the waste generation assumptions analyzed in the MBCSP FEIR and is already accounted for under the Specific Plan. Chapter 5, Article 10 of the Hayward Municipal Code mandates the submission and approval of a Debris Recycling Statement before demolition or construction can begin. As stated under **Section 4.12, Proposed Project's Best Management Practices**, before starting demolition and construction activities, the project developer would submit a Debris Recycling Statement to the City to comply with Chapter 4, Article 5 of the Code. Therefore, similar to the MBCSP FEIR, the proposed project's impact associated with solid waste would be less than significant.

Operational Waste:

Solid waste generated at the proposed project site would be disposed of at Altamont Landfill. The proposed project would produce additional solid wastes but waste generated would be within the previous estimate analyzed in the MBCSP FEIR. Therefore, similar to the conclusion of the MBCSP FEIR, solid waste generated by project operations would not exceed the capacity of the Altamont Landfill, and would not require the construction or expansion of solid waste handling and disposal facilities. The impact in regards to landfill capacity would be less than significant and no new mitigation is required.

Cumulative: Cumulative impacts from the projected development in the City of Hayward, including the MBCSP development, are evaluated in the 2040 General Plan EIR. The proposed Mission Crossings project is consistent with the MBCSP and is therefore an element of the growth analyzed in the 2040 General Plan EIR. That EIR concluded that the cumulative impacts related to utilities and service systems would be less than significant. All projects within the City would have to comply with relevant policies and programs to improve the quality of wastewater entering the system, wastewater collection system, and reduce potential impacts on solid waste/recycling facilities. Furthermore, as the analysis above shows, the proposed project's impacts related to utilities and service systems would be less than significant. Therefore, the proposed project would not make a cumulatively considerable contribution to any significant cumulative impact with respect to utilities and service systems.

Changes in Circumstances and/or Substantial New Information

Since certification of the MBCSP FEIR, there have been no changes in circumstances or new information that would alter the conclusions of the MBCSP FEIR with respect to utility and service systems impacts such that additional environmental review would be triggered.

Findings

The potential utilities impacts of the proposed project are adequately analyzed in the MBCSP FEIR, the proposed project would not result in new or substantially increased significant impacts beyond those discussed in MBCSP FEIR. No new mitigation is required.

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APPENDIX A

Air Quality and Greenhouse Gases Technical Report

MISSION CROSSINGS MIXED USE DEVELOPMENT

DRAFT AIR QUALITY AND GREENHOUSE GAS EMISSIONS ASSESSMENT

Hayward, California

March 3, 2017

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Introduction

The purpose of this report is to address air quality and greenhouse gas (GHG) impacts associated with the mixed-use development project proposed at 25501 Mission Boulevard and 671 Berry Avenue in Hayward. The project site is within the Mission Boulevard Corridor Specific Plan (Specific Plan). In October 2013, the Hayward City Council certified the Final Environmental Impact Report (FEIR) and the Mitigation Monitoring and Reporting Program for the Specific Plan pursuant to the California Environmental Quality Act (CEQA).

The project site of approximately 9.73 acres is comprised of four parcels with three commercial parcels located along Mission Boulevard and Torrano Avenue and an adjacent longitudinal residential parcel that connects the site to Berry Avenue. The project site is bound by Mission Boulevard to the east, Torrano Avenue to the south, and the Bay Area Rapid Transit (BART) right-of-way to the west. Immediately to the north are industrial and residential developments that include the longitudinal fourth project parcel.

Three commercial buildings with associated surface parking lot of about 315,000 square feet are located on the three parcels on Mission Boulevard and Torrano Avenue. Two of the commercial buildings formerly occupied by Hayward Ford Car Dealership are currently vacant. The third building currently occupied by Blue Star Motors (used car dealership) is located at the southeast corner of the project site. A vacant single-family home and an unpaved lot with few ornamental trees are located on the fourth parcel at Berry Avenue.

The proposed project would demolish the existing structures at the project site and construct a commercial/residential mixed-use development that includes a 93-room Marriott Residence Inn Hotel and 27 townhome buildings with 140 dwelling units. Open space areas would be located throughout the residential portion of the project site with larger areas of common open space between buildings 2 and 3, between buildings 6,7,10, and 11, and between buildings 4 and 5. A total of 220 enclosed parking spaces would be provided for the residential component along with 87 surface spaces. The hotel and retail component would provide approximately 100 surface parking spaces.

The City has a standard set of construction related conditions that would be incorporated into project construction plans. These include the following:

1. The developer shall ensure that unpaved construction areas are sprinkled with water as necessary to reduce dust generation. Construction equipment shall be maintained and operated in such a way as to minimize exhaust emissions. If construction activity is postponed, graded or vacant land shall immediately be revegetated. (DS/PW-ET)

2. All diesel powered equipment (≥ 100 horsepower) shall be California Air Resources Board (CARB) Tier 3 Certified or better. (DS/PW-ET)

3. The following control measures for construction noise, grading and construction activities shall be adhered to, unless otherwise approved by the Planning Director or City Engineer:

a. Grading and site construction activities shall be limited to the hours 8:00 AM to 5:00 PM Monday through Friday with no work on weekends and Holidays unless revised hours and days are authorized by the City Engineer. Building construction hours are subject to Building Official's approval;

b. Grading and construction equipment shall be properly muffled;

c. Unnecessary idling of grading and construction equipment is prohibited;

d. Stationary noise-generating construction equipment, such as compressors, shall be located as far as practical from occupied residential housing units;

e. Applicant/developer shall designate a "noise disturbance coordinator" who will be responsible for responding to any local complaints about construction noise. Letters shall be mailed to surrounding property owners and residents within 300 feet of the project boundary with this information.

f. The developer shall post the property with signs that shall indicate the names and phone number of individuals who may be contacted, including those of staff at the Bay Area Air Quality Management District, when occupants of adjacent residences find that construction is creating excessive dust or odors, or is otherwise objectionable. Letters shall also be mailed to surrounding property owners and residents with this information prior to commencement of construction.

g. Daily clean-up of trash and debris shall occur on project street frontages, and other neighborhood streets utilized by construction equipment or vehicles making deliveries.

h. All construction debris shall be collected on a regular basis and placed in a dumpster or other container which is emptied or removed on a weekly basis. When appropriate, use tarps on the ground to collect fallen debris or splatters that could contribute to storm water pollution;

i. All dirt, gravel, rubbish, refuse and green waste shall be removed from the sidewalk, street pavement, and storm drain system adjoining the project site. During wet weather, driving vehicles off paved areas and other outdoor work shall be avoided;

j. The site shall be watered twice daily during site grading and earth removal work, or at other times as may be needed to control dust emissions;

k. All grading and earth removal work shall follow remediation plan requirements, if soil contamination is found to exist on the site;

l. Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites;

m. Sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites;

n. Sweep public streets daily if visible soil material is carried onto adjacent public streets;

o. Apply (non-toxic) soil stabilizers or hydroseed to inactive construction areas (previously graded areas inactive for 10-days or more);

p. Enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.).

q. Broom sweep the sidewalk and public street pavement adjoining the project site on a daily basis. Caked on mud or dirt shall be scraped from these areas before sweeping;

In addition, the City will impose the following condition of approval (OR BMPs) to construction equipment:

All mobile diesel-powered off-road equipment larger than 25 horsepower and operating on the site for more than two days continuously shall meet, at a minimum, U.S. EPA particulate matter emissions standards for Tier 4 engines or equivalent. The construction contractor could use other measures to minimize construction period DPM emission to reduce the predicted cancer risk below the thresholds. The use of equipment that includes CARB-certified Level 3 Diesel Particulate Filters[1] or alternatively-fueled equipment (i.e., non-diesel) would meet this requirement. Other measures may be the use of added exhaust devices, or a combination of measures, provided that these measures are approved by the City and demonstrated to reduce community risk impacts to less than significant.

This report analyzes and presents the air pollutant and GHG emissions associated with construction and operation of the project. In addition, the potential construction health risk impact to nearby sensitive receptors and the impact of existing toxic air contaminant (TAC) sources affecting the proposed residences have been evaluated. This analysis has been carried out following the guidance provided by the Bay Area Air Quality Management District (BAAQMD).

[1] See http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm

Setting

The project is located in the Alameda County, which is in the San Francisco Bay Area Air Basin. Ambient air quality standards have been established at both the State and federal level. The Bay Area meets all ambient air quality standards with the exception of ground-level ozone, respirable particulate matter (PM_{10}), and fine particulate matter ($PM_{2.5}$).

Air Pollutants of Concern

High ozone levels are caused by the cumulative emissions of reactive organic gases (ROG) and nitrogen oxides (NOx). These precursor pollutants react under certain meteorological conditions to form high ozone levels. Controlling the emissions of these precursor pollutants is the focus of the Bay Area's attempts to reduce ozone levels. The highest ozone levels in the Bay Area occur in the eastern and southern inland valleys that are downwind of air pollutant sources. High ozone levels aggravate respiratory and cardiovascular diseases, cause reduced lung function, and increase coughing and chest discomfort.

Particulate matter is another problematic air pollutant of the Bay Area. Particulate matter is assessed and measured in terms of respirable particulate matter or particles that have a diameter of 10 micrometers or less (PM_{10}) and fine particulate matter where particles have a diameter of 2.5 micrometers or less ($PM_{2.5}$). Elevated concentrations of PM_{10} and $PM_{2.5}$ are the result of both region-wide (or cumulative) emissions and localized emissions. High particulate matter levels aggravate respiratory and cardiovascular diseases, reduce lung function, increase mortality (e.g., lung cancer), and result in reduced lung function growth in children.

Toxic Air Contaminants

Toxic air contaminants (TAC) are a broad class of compounds known to cause morbidity or mortality (usually because they cause cancer) and include, but are not limited to, the criteria air pollutants. TACs are found in ambient air, especially in urban areas, and are caused by manufacturing industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., diesel particulate matter [DPM] near a freeway). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, State, and federal level.

Diesel exhaust is the predominant TAC in urban air and is estimated to represent about three-quarters of the cancer risk from TACs (based on the Bay Area average). According to the California Air Resources Board (CARB), diesel exhaust is a complex mixture of gases, vapors, and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the CARB, and are listed as carcinogens either under the State's Proposition 65 or under the Federal Hazardous Air Pollutants programs.

CARB has adopted and implemented a number of regulations for stationary and mobile sources to reduce emissions of DPM. Several of these regulatory programs affect medium and heavy duty diesel trucks that represent the bulk of DPM emissions from California highways. These regulations include the solid waste collection vehicle (SWCV) rule, in-use public and utility fleets, and the heavy-duty diesel truck and bus regulations. In 2008, CARB approved a new regulation to reduce emissions of DPM and nitrogen oxides from existing on-road heavy-duty diesel fueled vehicles.[2] The regulation requires affected vehicles to meet specific performance requirements between 2014 and 2023, with all affected diesel vehicles required to have 2010 model-year engines or equivalent by 2023. These requirements are phased in over the compliance period and depend on the model year of the vehicle.

The BAAQMD is the regional agency tasked with managing air quality in the region. At the State level, the CARB (a part of the California Environmental Protection Agency [EPA]) oversees regional air district activities and regulates air quality at the State level. The BAAQMD has published California Environmental Quality Act (CEQA) Air Quality Guidelines that are used in this assessment to evaluate air quality impacts of projects.[3] *Attachment 1* includes detailed community risk modeling methodology.

Sensitive Receptors

There are groups of people more affected by air pollution than others. CARB has identified the following persons who are most likely to be affected by air pollution: children under 16, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, and elementary schools. The closest sensitive receptors to the project site include the apartments to the west and the north and the single family-family homes to the southeast and west of the project site. The Kidango-Glen Berry Center Preschool is located adjacent to the northern project boundary.

Greenhouse Gases

Gases that trap heat in the atmosphere, GHGs, regulate the earth's temperature. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate. The most common GHGs are carbon dioxide (CO_2) and water vapor but there are also several others, most importantly methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). These are released into the earth's atmosphere through a variety of natural processes and human activities. Sources of GHGs are generally as follows:

- CO_2 and N_2O are byproducts of fossil fuel combustion.
- N_2O is associated with agricultural operations such as fertilization of crops.
- CH_4 is commonly created by off-gassing from agricultural practices (e.g., keeping livestock) and landfill operations.

[2] Available online: http://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm. Accessed: November 21, 2014.
[3] Bay Area Air Quality Management District. 2011. BAAQMD CEQA Air Quality Guidelines. May.

- Chlorofluorocarbons (CFCs) were widely used as refrigerants, propellants, and cleaning solvents but their production has been stopped by international treaty.
- HFCs are now used as a substitute for CFCs in refrigeration and cooling.
- PFCs and sulfur hexafluoride emissions are commonly created by industries such as aluminum production and semi-conductor manufacturing.

Each GHG has its own potency and effect upon the earth's energy balance. This is expressed in terms of a global warming potential (GWP), with CO_2 being assigned a value of 1 and sulfur hexafluoride being several orders of magnitude stronger with a GWP of 23,900. In GHG emission inventories, the weight of each gas is multiplied by its GWP and is measured in units of CO_2 equivalents (CO_2e).

An expanding body of scientific research supports the theory that global warming is currently affecting changes in weather patterns, average sea level, ocean acidification, chemical reaction rates, and precipitation rates, and that it will increasingly do so in the future. The climate and several naturally occurring resources within California could be adversely affected by the global warming trend. Increased precipitation and sea level rise could increase coastal flooding, saltwater intrusion, and degradation of wetlands. Mass migration and/or loss of plant and animal species could also occur. Potential effects of global climate change that could adversely affect human health include more extreme heat waves and heat-related stress; an increase in climate-sensitive diseases; more frequent and intense natural disasters such as flooding, hurricanes and drought; and increased levels of air pollution.

Significance Thresholds

In June 2010, BAAQMD adopted thresholds of significance to assist in the review of projects under CEQA. These Thresholds were designed to establish the level at which BAAQMD believed air pollution emissions would cause significant environmental impacts under CEQA and were posted on BAAQMD's website and included in the Air District's updated CEQA Guidelines (updated May 2011). The significance thresholds identified by BAAQMD and used in this analysis are summarized in Table 1.

The BAAQMD's adoption of significance thresholds contained in the 2011 CEQA Air Quality Guidelines was called into question by an order issued March 5, 2012, in California Building Industry Association (CBIA) v. BAAQMD (Alameda Superior Court Case No. RGI0548693). The order requires the BAAQMD to set aside its approval of the thresholds until it has conducted environmental review under CEQA. The ruling made in the case concerned the environmental impacts of adopting the thresholds and how the thresholds would indirectly affect land use development patterns. In August 2013, the Appellate Court struck down the lower court's order to set aside the thresholds (Cal. Court of Appeal, First Appellate District, Case Nos. A135335 & A136212). CBIA sought review by the California Supreme Court on three issues, including the appellate court's decision to uphold the BAAQMD's adoption of the thresholds, and the Court granted review on just one: Under what circumstances, if any, does CEQA require an analysis of how existing environmental conditions will impact future residents or users of a proposed project? In December 2015, the Supreme Court determined that an analysis of the

impacts of the environment on a project – known as "CEQA-in-reverse" – is only required under two limited circumstances: (1) when a statute provides an express legislative directive to consider such impacts; and (2) when a proposed project risks exacerbating environmental hazards or conditions that already exist (Cal. Supreme Court Case No. S213478). The Supreme Court reversed the Court of Appeal's decision and remanded the matter back to the appellate court to reconsider the case in light of the Supreme Court's ruling. Because the Supreme Court's holding concerns the effects of the environment on a project (as contrasted to the effects of a proposed project on the environment), and not the science behind the thresholds, the significance thresholds contained in the 2011 CEQA Air Quality Guidelines are applied to this project.

Table 1. Air Quality Significance Thresholds

Pollutant	Construction Thresholds	Operational Thresholds	
	Average Daily Emissions (lbs./day)	Average Daily Emissions (lbs./day)	Annual Average Emissions (tons/year)
Criteria Air Pollutants			
ROG	54	54	10
NO_x	54	54	10
PM_{10}	82 (Exhaust)	82	15
$PM_{2.5}$	54 (Exhaust)	54	10
CO	Not Applicable	9.0 ppm (8-hour average) or 20.0 ppm (1-hour average)	
Fugitive Dust	Construction Dust Ordinance or other Best Management Practices	Not Applicable	
Health Risks and Hazards for Single Sources			
Excess Cancer Risk	>10 per one million		
Hazard Index	>1.0		
Incremental annual $PM_{2.5}$	>0.3 µg/m^3		
Health Risks and Hazards for Combined Sources (Cumulative from all sources within 1,000 foot zone of influence)			
Excess Cancer Risk	>100 per one million		
Hazard Index	>10.0		
Annual Average $PM_{2.5}$	>0.8 µg/m^3		
Greenhouse Gas Emissions			
GHG Annual Emissions	Compliance with a Qualified GHG Reduction Strategy OR 1,100 metric tons or 4.6 metric tons per capita		

Note: ROG = reactive organic gases, NOx = nitrogen oxides, PM_{10} = course particulate matter or particulates with an aerodynamic diameter of 10 micrometers (µm) or less, $PM_{2.5}$ = fine particulate matter or particulates with an aerodynamic diameter of 2.5µm or less; and GHG = greenhouse gas.

The City's General Plan, includes several air quality policies that address the exposure of sensitive receptors to existing sources of TACs and $PM_{2.5}$[4]. The General Plan policies that address community risk exposure to TACs and PM2.5 are as follows:

> **NR-2.15 Community Risk Reduction Strategy**. The City shall maintain and implement the General Plan as Hayward's community risk reduction strategy to reduce health risks associated with toxic air contaminants (TACs) and fine particulate matter (PM2.5) in both existing and new development.)
>
> **NR-2.16 Sensitive Uses.** The City shall minimize exposure of sensitive receptors to toxic air contaminants (TAC), fine particulate matter (PM2.5), and odors to the extent possible, and consider distance, orientation, and wind direction when siting sensitive land uses in proximity to TAC- and PM2.5-emitting sources and odor sources in order to minimize health risk
>
> **NR-2.17 Source Reduction Measures.** The City shall coordinate with and support the efforts of the Bay Area Air Quality Management District, the California Air Resources Board, the U.S. Environmental Protection Agency, and other agencies as appropriate to implement source reduction measures and best management practices that address both existing and new sources of toxic air contaminants (TAC), fine particulate matter (PM2.5), and odors.
>
> **NR-2.18 Exposure Reduction Measures for New Receptors.** The City shall require development projects to implement all applicable best management practices that will reduce exposure of new sensitive receptors (e.g., hospitals, schools, daycare facilities, elderly housing and convalescent facilities) to odors, toxic air contaminants (TAC) and fine particulate matter (PM2.5).
>
> **NR-2.19 Exposure Reduction Measures for both Existing and New Receptors.** The City shall work with area businesses, residents and partnering organizations to provide information about best management practices that can be implemented on a voluntary basis to reduce exposure of sensitive receptors to toxic air contaminants (TAC) and fine particulate matter (PM2.5).

The significance thresholds that address impacts to the project from the existing environment contained in the 2011 CEQA Air Quality Guidelines are applied to this project to be consistent with the General Plan. This analysis evaluated the overall community risk impacts to the new residents from sources within 1,000 feet of the project site.

Impacts - CEQA Air Quality and GHG Checklist

> **Impact 1:** Would the project conflict with or obstruct implementation of the applicable air quality plan? ***Less than Significant***

The Project is located in the Alameda County which is in the San Francisco Bay Area Air Basin. The Project is in an area currently designated nonattainment for the state 1-hour and 8-hour ozone standards, nonattainment for the state 24-hour and annual PM_{10} standards, and nonattainment for the state annual $PM_{2.5}$ standard. It is also designated as nonattainment for the national 8-hour ozone standard and nonattainment for the national 24-hour $PM_{2.5}$ standard. To meet planning requirements related to these standards, the BAAQMD has developed a regional air quality plan, the Bay Area 2010 Clean Air Plan. A significant impact would occur if a project

[4] Source: 2040 Hayward General Plan, Policy Document: Part 3, Natural Resources Element

conflicted with the Plan by not being consistent with the population-growth and vehicle miles traveled assumptions of the Plan.

The proposed project is part of the Mission Boulevard Corridor Specific Plan (Specific Plan), which, the DEIR analysis found that the plan would not conflict with the Bay Area's Clean Air Plan as the plan's projected traffic growth would be less than population growth and the plan supports the goals of the Clean Air Plan. The Specific Plan DEIR found that the Specific Plan would encourage urban infill mixed use development with access to local and regional transit options, such that the amount of vehicle trips generated by such a project would be substantially reduced through pedestrian, bicycle and transit usage and internal trip capture as multiple uses will be located conveniently near each other. Mixed-use, transit-oriented growth, such as the Project, would generate fewer trips than growth elsewhere without these characteristics; thereby, supporting the goal to balance trip growth with population growth. The Specific Plan was also found to support the goals of the Clean Air Plan, including applicable control measures, and would not disrupt or hinder implementation of any Clean Air Plan control measures. Since the project is consistent with and part of the Specific Plan, it too would not conflict with the Clean Air Plan. As a result, the Project would not conflict with or obstruct implementation of the Plan, and this impact would be less than significant.

> **Impact 2:** Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable State or federal ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? ***Less than significant***

The Bay Area is considered a non-attainment area for ground-level ozone and $PM_{2.5}$ under both the Federal Clean Air Act and the California Clean Air Act. The area is also considered non-attainment for PM_{10} under the California Clean Air Act, but not the federal act. The area has attained both State and federal ambient air quality standards for carbon monoxide. As part of an effort to attain and maintain ambient air quality standards for ozone and PM_{10}, the BAAQMD has established thresholds of significance for these air pollutants and their precursors. These thresholds are for ozone precursor pollutants (ROG and NOx), PM_{10}, and $PM_{2.5}$ and apply to both construction period and operational period impacts.

The California Emissions Estimator Model (CalEEMod) Version 2016.3.1 was used to estimate emissions from construction and operation of the site assuming full build out of the project. The project land use types and size, and anticipated construction schedule were input to CalEEMod.

2.1 Construction period emissions

CalEEMod provided annual emissions for construction. CalEEMod provides emission estimates for both on-site and off-site construction activities. On-site activities are primarily made up of construction equipment emissions, while off-site activity includes worker, hauling, and vendor traffic. A construction build-out scenario, including equipment list and schedule by phase, was provided by the project applicant. The proposed project land uses were input into CalEEMod, which included: 9.73 acres entered as "City Park" for site preparation; 93 rooms entered as

"Hotel," 7,225 sf entered as "Strip Mall," and 104 spaces entered as "Parking Lot" on 2.1 acres for hotel construction; and 141 dwelling units entered as "Condo/Townhouse," 200 spaces entered as "Enclosed Parking Structure," and 117 spaces entered as "Parking Lot" on 7.76 acres for residential construction. [5]

The project would require up to 15,000 cubic yards (cy) of soil export which was entered into the model. 59,700 sf of building and 315,000 sf of pavement demolition is anticipated and also was entered into the model. In addition, 400 cement truck round trips are anticipated during the hotel construction phase and were entered into the model by phase. The residential parking lot is expected to need 82,000 sf of paving material and the hotel parking lot 40,100 sf of paving material. Assuming the depth of the pavement to be 0.5 feet, the volume of paving material required was computed and the number of trips based on 16cy/truck trip was entered into the model.

The anticipated construction schedule assumes that the project would be built out over a period of approximately 24 months, beginning in June 2017, or an estimated 520 construction workdays (assuming an average of 260 construction days per year). Average daily emissions were computed by dividing the total construction emissions by the number of construction days. Table 2 shows average daily construction emissions of ROG, NO_X, PM_{10} exhaust, and $PM_{2.5}$ exhaust during construction of the project. As indicated in Table 2, predicted project emissions would not exceed the BAAQMD significance thresholds. *Attachment 2* includes the CalEEMod input and output values for construction emissions.

Table 2. Construction Period Emissions

Scenario	ROG	NOx	PM_{10} Exhaust	$PM_{2.5}$ Exhaust
Emissions during site work (tons)	0.06 tons	1.29 tons	0.01 tons	0.01 tons
Emissions during residential construction (tons)	1.02 tons	1.47 tons	0.01 tons	001 tons
Emissions during hotel construction (tons)	0.82 tons	0.93 tons	0.01 tons	0.01 tons
Total construction emissions (tons)	1.90 tons	3.69 tons	0.03 tons	00.03 tons
Average daily emissions (pounds)[1]	7.3lbs.	14.2 lbs.	0.01 lbs.	0.01lbs.
BAAQMD Thresholds (pounds per day)	*54* lbs.	*54* lbs.	*82* lbs.	*54* lbs.
Exceed Threshold?	**No**	**No**	**No**	**No**
Notes: [1]Assumes 520 workdays.				

Construction activities, particularly during site preparation and grading, would temporarily generate fugitive dust in the form of PM_{10} and $PM_{2.5}$. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after it dries. These emissions are considered significant if best management practices in reducing fugitive dust emissions are not employed at construction sites. The City requires projects to implement a standard set of construction-related conditions that are consistent with those measures recommended by BAAQMD and considered best

[5] The construction emissions have been computed in phases. The first phase involves site preparation, grading and trenching which would occur over the entire project site. No structures would be built during this phase. CalEEMod has a list of built-in land uses to choose from and the 'City Park' land use is most representative of site preparation.

practices. With the implementation of these practices, outlined in the project description, the impact related to fugitive dust emissions would be less than significant.

2.2 Operational Period Emissions

Operational air emissions from the project would be generated primarily from autos driven by future residents and employees. Evaporative emissions from architectural coatings and maintenance products (classified as consumer products) are other typical emissions from these types of uses. CalEEMod was used to predict emissions from operation of the proposed project assuming full build-out.

Land Uses

The project land uses which were input into CalEEMod included 141 dwelling units entered as "Condo/Townhouse," 93 rooms entered as "Hotel," 5,725 sf entered as "Strip Mall," 1,500 sf entered as "Fast Food Restaurant with Drive Thru," 200 spaces as "Enclosed Parking Structure," and 221 spaces as "Parking Lot." [6][7]

Model Year

Emissions associated with vehicle travel depend on the year of analysis because emission control technology requirements are phased-in over time. Therefore, the earlier the year analyzed in the model, the higher the emission rates utilized by CalEEMod. The earliest full year the build-out project could possibly be constructed and begin operating would be 2020. Emissions associated with build-out later than 2020 would be lower.

Trip Generation Rates

CalEEMod allows the user to enter specific vehicle trip generation rates, which were input to the model using the daily trip generation rate provided in the project traffic report. These included the reductions for internal trips due to the mixed-use nature of the project. The default trip lengths and trip types specified by CalEEMod were used.

Energy

CalEEMod defaults for energy use were used, which include the 2013 Title 24 Building Standards.

Other Inputs

[6] The analysis presented here is conservative as it uses higher land use sizes. The project description has been updated since the analysis was carried out. The project proposes to develop 27 townhome buildings housing 140 units and a 93 room hotel. The residential component would provide 220 enclosed and 87 surface parking spaces. The hotel would provide approximately 100 parking spaces.

[7] The inputs for land uses for modeling operational emissions differ slightly from that for construction emissions. The 7,225 sf "Strip mall" land use input for modeling construction emissions has been split into a 5,725 sf "Strip Mall" and a 1,500 sf "Fast Food Restaurant with Drive Thru" to model operational emissions. The land uses were separated out to maintain consistency with the taffic analysis.

Default model assumptions for emissions associated with solid waste generation and water/wastewater use were applied to the project to estimate GHG emissions. No new wood-burning stoves or fireplaces are allowed in the Bay Area, but it was assumed that new residences could include gas-powered fireplaces.

Project Generator

The only sources of stationary air pollutants identified with build-out of the project are assumed to be two emergency back-up generators. For modeling the emission we have assumed the power rating of each generator to be 150 hp (112 KW). It is assumed for this assessment that the generators would be driven by diesel-fueled engines.

The emergency back-up generators would be used for backup power in emergency conditions. It is assumed that the generator will be operated for testing and maintenance purposes, with a maximum of 36 hours each per year of non-emergency operation under normal conditions allowed by BAAQMD. During testing periods the engine would typically be run for less than one hour. The engine would be required to meet CARB and U.S. EPA emission standards. The engines will consume commercially available California low-sulfur diesel fuel. The generator emissions were modeled using CalEEMod.

Table 3 reports the predicted emission in terms of annual emissions in tons and average daily operational emissions, assuming 365 days of operation per year. As shown in Table 3, average daily and annual emissions of ROG, NOx, PM_{10}, or $PM_{2.5}$ emissions associated with operation would not exceed the BAAQMD significance thresholds.

Table 3. Operational Emissions

Scenario	**ROG**	**NOx**	**PM_{10}**	**$PM_{2.5}$**
Emissions- Hotel	1.08 tons	2.82 tons	0.84 tons	0.25 tons
Emissions-Residential	0.91 tons	2.04 tons	0.76 tons	0.23 tons
Total Project Emissions	1.99 tons	4.86 tons	1.60 tons	0.48 tons
BAAQMD Thresholds (tons /year)	*10 tons*	*10 tons*	*15 tons*	*10 tons*
Exceed Threshold?	***No***	***No***	**No**	**No**
Average Daily Project Operational Emissions (pounds)[1]	10.9 lbs.	13.31 lbs.	8.8 lbs.	2.6 lbs.
BAAQMD Thresholds (pounds/day)	*54* lbs.	*54* lbs.	*82* lbs.	*54* lbs.
Exceed Threshold?	**No**	**No**	**No**	**No**
[1]Assumes 365-day operation.				

Impact 3: Violate any air quality standard or contribute substantially to an existing or projected air quality violation? ***Less than significant.***

As shown above in Table 2 and Table 3, the project's ozone and particulate matter emissions, both construction and operational, would be less than significant. Therefore, the project

would not contribute substantially to existing or projected violations of those standards. Carbon monoxide emissions from traffic generated by the project would be the pollutant of greatest concern at the local level. Congested intersections with a large volume of traffic have the greatest potential to cause high-localized concentrations of carbon monoxide. Air pollutant monitoring data indicate that carbon monoxide levels have been at healthy levels (i.e., below State and federal standards) in the Bay Area since the early 1990s. As a result, the region has been designated as attainment for the standard. The highest measured level over any 8-hour averaging period during the last 3 years in the Bay Area is less than 3.0 parts per million (ppm), compared to the ambient air quality standard of 9.0 ppm. Intersections affected by the project would have traffic volumes less than the BAAQMD screening criteria of 44,000 vehicles per hour per intersection and, thus, would not cause a violation of an ambient air quality standard or have a considerable contribution to cumulative violations of these standards.

Impact 4: Expose sensitive receptors to substantial pollutant concentrations? ***Less than significant***

Project impacts related to increased community risk can occur either by introducing a new sensitive receptor, such as a residential use, in proximity of an existing source of TACs or by introducing a new source of TACs with the potential to adversely affect existing sensitive receptors in the project vicinity. The BAAQMD recommends using a 1,000-foot screening radius around a project site for purposes of identifying community health risk from siting a new sensitive receptor or a new source of TACs. The project would introduce new sensitive receptors to the area in the form of future residences[8]. It is anticipated that the project would include two emergency back-up generators, which would primarily be operated for testing and emergency purposes. Construction activity would generate dust and equipment exhaust on a temporary basis that could affect nearby sensitive receptors.

4.1 Community Risk Impacts: On-Site Receptors

Community health risk assessments typically look at all substantial sources of TACs that can affect sensitive receptors that are located within 1,000 feet of a project site. These sources include freeways or highways, busy surface streets and stationary sources identified by BAAQMD. Traffic on high volume roadways is a source of TAC emissions that may adversely affect sensitive receptors in close proximity to the roadway. For local roadways, BAAQMD considers roadways with traffic volumes of over 10,000 vehicles per day to have a potentially significant impact on a proposed project. A review of the project area identified Mission Boulevard as the only source of mobile TAC emissions. A railroad line and a BART line run along the western boundary of the project site. No freight train activity was found to be associated the railroad. Hence, the impact from the rail line would not be

[8] In California Building Industry Association v. Bay Area Air Quality Management District, the court held that "agencies subject to CEQA generally are not required to analyze the impact of existing conditions on a project's future users or residents. But when a proposed project risks exacerbating those environmental conditions that already exist, an agency must analyze the potential impacts of such hazards on future residents or users. In those special circumstances, it is the project's impact on the environment – and not the environment's impact on the project – that compels an evaluation of how future users or residents could be affected by exacerbated conditions."

considered significant. A review of BAAQMD's Google Earth map tool used to identify stationary sources revealed only one stationary source with the potential to affect the project site. As mentioned above, the project would also include two back-up generators. Community risk impacts from these sources on the project are reported in Table 4.

4.1.1 Roadway Impacts: SR-238 (Mission Boulevard)

In the vicinity of the project area SR-238 (Mission Boulevard) has 35,305 average daily trips (ADT). A traffic volume study and refined analysis of the impacts of TAC and $PM_{2.5}$ is necessary to evaluate potential cancer risks and $PM_{2.5}$ concentrations from SR-238. A review of the traffic information reported by Caltrans indicates that SR-238 traffic includes about 3.5 percent trucks, of which 1.8 percent are considered heavy duty trucks and 1.7 percent are medium duty trucks[9].

DPM, organic TACs, and $PM_{2.5}$ emissions for traffic on SR-238 were computed using the CARB EMFAC2014 emission factor model and the traffic mix developed from Caltrans data. EMFAC2014 is the most recent version of the CARB motor vehicle emission factor model. DPM emissions are projected to decrease in the future and are reflected in the EMFAC2014 emissions data.

Residential occupation of the project was assumed to begin in 2020 or thereafter. In order to estimate TAC and $PM_{2.5}$ emissions for calculating increased cancer risks to new residents from traffic on SR-238, the EMFAC2014 model was used to develop vehicle emission factors for the year 2020 using the calculated mix of cars and trucks and assuming a 1 percent per year growth rate in traffic volume. Year 2020 emissions were conservatively assumed as being representative of conditions for the entire residential exposure period (2020 through 2049), since overall vehicle emissions and, in particular, diesel truck emissions will decrease in the future. Default EMFAC2014 vehicle model fleet age distributions for Alameda County were assumed in calculating the emissions.

Average hourly traffic distributions for Alameda County roadways were developed using the EMFAC model,[10] which were then applied to the average daily traffic volumes to obtain estimated hourly traffic volumes and emissions for SR-238. For all hours of the day, other than during peak a.m. and p.m. periods, an average speed of 35 mph was assumed for all vehicles. Based on data from the Alameda County Transportation Commission 2016 Level of Service Monitoring report, traffic speeds during the peak a.m. and p.m. periods were identified. Travel speeds of 20 mph were used for the morning peak period and 15 mph in the evening peak period for northbound traffic. For southbound traffic, travel speeds of 20 mph were used for both morning and evening peak period.

Emissions of TOGs (Total Organic Gases) were also calculated using the EMFAC2014 model. These TOG emissions were then used in modeling the organic TACs (i.e.,

[9] Caltrans, 2016. *2015 Annual Average Daily Truck Traffic on the California State Highways.*

[10] The Burden output from EMFAC2007, CARB's previous version of the EMFAC model, was used for this since the current web-based version of EMFAC2014 does not include Burden type output with hour by hour traffic volume information.

TACs associated with motor vehicle from TOG exhaust emissions and evaporative TOG emissions). TOG emissions from exhaust and running evaporative loses from gasoline vehicles were calculated using the default model values for Alameda along with the calculated traffic volumes and vehicle mixes for SR-238.

$PM_{2.5}$ emissions for vehicles traveling on SR-238 were modeled using the same basic modeling approach that was used for assessing TAC impacts. All $PM_{2.5}$ emissions from all vehicles were used, rather than just the $PM_{2.5}$ fraction from diesel powered vehicles, because all vehicle types (i.e., gasoline and diesel powered) produce $PM_{2.5}$. Additionally, $PM_{2.5}$ emissions from vehicle tire and brake wear and from entrained roadway dust were included in these emissions. These emissions were calculated using the EMFAC2014 model for the 2020 traffic volumes and were calculated in the same manner as discussed earlier for the TAC modeling. $PM_{2.5}$ entrained dust emissions from vehicles traffic were calculated using CARB emission calculation procedures.[11]

Dispersion Modeling

Dispersion modeling was conducted using the CAL3QHCR model, which is recommended by the BAAQMD for this type of analysis.[12] A five-year data set 1990-1994 of hourly meteorological data from the Union City Meteorological Station, prepared by the BAAQMD, was used in the modeling. Other inputs to the model included road geometry, hourly traffic volumes, emission factors, and on-site project receptor locations and heights. North and south bound traffic on SR-238 within about 1,000 feet of the project site was evaluated with the model.

Receptors are specific locations, identified by modeling coordinates, where TAC or $PM_{2.5}$ concentrations are predicted by the dispersion model. The modeling used on-site receptors placed at locations of the proposed residential units within the residential areas. The CAL3QHCR model provides annual concentrations at each receptor. Figure 1 shows the roadway links and receptor locations used in the modeling. *Attachment 3* includes the emission factors and risk computations used in modeling.

Computed Cancer Risk

Increased cancer risks for new residents at the project site from traffic on SR-238 were calculated using modeled TAC concentrations and the methods and exposure parameters described in *Attachment 1*that address infant, child and adult exposures. The maximum increased cancer risk from traffic at residential receptors was computed as 1.3 in one million at the project maximally exposed individual (MEI). This was modeled at the eastern portion of the project site closest to SR-238, as shown on Figure 1. Maximum cancer risks at the project site are below the BAAQMD's threshold of greater than 10 in one million excess cancer cases per million.

[11] CARB, 2014. *Miscellaneous Process Methodology 7.9, Entrained Road Travel, Paved Road Dust*. Revised and updated, April 2014.
[12] BAAQMD, 2012. *Recommended Methods for Screening and Modeling Local Risks and Hazards*. May.

Non-Cancer Health Effects

For non-cancer health effects from DPM, a chronic HI of < 0.001 was computed based on a maximum DPM concentration of 0.0016 µg/m^3. This HI is well below the BAAQMD HI threshold greater than 1.0.

$PM_{2.5}$ Concentrations from Modeled Roadways

The model predicted the maximum annual $PM_{2.5}$ concentration from SR-238 traffic was 0.08 µg/m^3, which would occur at the same residential receptor that had the maximum cancer risk in the eastern portion of the project residential area (see Figure 1). The maximum annual $PM_{2.5}$ concentration does not exceed the $PM_{2.5}$ threshold of greater than 0.3 µg/m^3.

Figure 1. On- Site Sensitive Receptors, Roadway Segments Modeled, and Receptors with Maximum Cancer Risk and Annual $PM_{2.5}$ Concentration



4.1.2 Off-Site Stationary Sources

Permitted stationary sources of air pollution near the project site were identified using BAAQMD's *Stationary Source Risk & Hazard Analysis Tool*. This mapping tool uses Google Earth and identified the location of several stationary sources and their estimated risk and hazard impacts. The 2011 screening values obtained from the Google Earth tool were adjusted using the OEHHA adjustment factor of 1.3744.[13] Plant G10686, described below, was found to be the only source with a potential to have a significant impact on the on-site and off-site receptors. Other sources including Wilma's Collision Repair located at 25571 Dollar Street, TKO Collision Repair at 25401 Mission Boulevard, Hayward Autobody Shop, Inc. at 25087 Mission Boulevard and Shanklin's Body Shop at 25486 Mission Boulevard were all found to have zero risks associated with them. The location of the stationary sources with respect to the project site are shown in Figure 2.

Plant G10686, which is an emergency generator located at 25225 Mission Boulevard operated by Arco (facility #09536), is about 335 feet north of the nearest project site receptor. At BAAQMD's direction, risk and $PM_{2.5}$ concentrations from the facility were adjusted based on BAAQMD's *Distance Adjustment Multiplier Tool for Gasoline Dispensing Facilities*. According to the BAAQMD screening data (and adjusted for the 335-foot distance and 2015 OEHHA methodology), this facility would result in an adjusted adult cancer risk of 5.3 per million, HI of less 0.01, and no $PM_{2.5}$ concentration, all of which would be below BAAQMD thresholds of significance. Since, the project MEI is located at a greater distance from the source, the risks would be lower.

4.1.3 On-Site Source- Project Generator

As previously described, two emergency back-up generators driven by diesel-fueled engine would be associated with the project. It is assumed that the generators would be operated primarily for testing and maintenance purposes, with a maximum of 36 hours per year of non-emergency operation under normal conditions. During testing periods the engine would typically be run for less than one hour under light engine loads. The engine would be required to meet U.S. EPA emission standards and consume commercially available California low sulfur diesel fuel.

The generators would require permits from the BAAQMD, since they would be equipped with engines larger than 50 hp. As part of the BAAQMD permit requirements, an assessment that shows less-than-significant health risks from diesel particulate matter exposure would be required. The risk assessment, prepared by BAAQMD, would have to show that cancer risks are less than 10 per million and that the project includes Best Available Toxics Control Technology, which would set limits for diesel particulate matter emissions. Sources of air pollutant emissions complying with all applicable BAAQMD regulations generally will not be considered to have a significant air quality community risk impact.

[13] Email correspondence with Alison Kirk, November 15, 2016.

Figure 2. Off-Site Stationary Sources



For calculating risks associated with generator emissions, emissions from the two 150 hp (112 KW) generators were considered. Emissions from the testing and maintenance of the generators were calculated using CalEEMod Version 2016.3.1. Results of generator emissions modeling indicate average daily emissions of about 0.01 pounds of DPM per day. Risk and $PM_{2.5}$ concentrations from a diesel generator of this size and average daily emissions were then calculated based on BAAQMD's *Risk and Hazards Emissions Screening Calculator (Beta Version)*. Results indicate that the project generators would result in an excess cancer risk of 8.8 per million,[14] $PM_{2.5}$ concentration of less than 0.01 $\mu g/m^3$ and HI of <0.01, all of which would be below BAAQMD thresholds of significance at nearby sensitive receptors. *Therefore, this impact would be considered less than significant*. *Attachment 4* includes emission factors and risk modeling calculations for the project emergency back-up generator.

[14] Includes adjustment factor of 1.3744 to account for latest OEHHA methodology per correspondence with Alison Kirk, BAAQMD, November 23, 2015.

4.1.4 Cumulative Community Risk Impacts

Cumulative TAC impacts are assessed by predicting the combined community risk impacts to the on-site receptors from the nearby sources, including Mission Boulevard, the emergency generator operated by Arco facility, and the two generators that would be installed as part of the proposed project. Table 4 reports the combination of impacts from all sources within 1,000 feet at the project site. As shown in Table 4, community risk impacts to the project site would be less significant.

Table 4. Community Risk Impacts to New Project Residences

Source	**Maximum Cancer Risk (per million)**	**Maximum Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)**	**Maximum Hazard Index**
Mission Boulevard at 240 feet	<1.3	<0.1	<0.01
Plant G10686, Emergency Generator, Arco (facility #09536), *Diesel Internal Combustion Engine Multiplier*	<5.3	Na	<0.01
Project Generators	8.8	<0.1	<0.01
Single Source Maximum	8.8	<0.1	<0.01
BAAQMD Threshold – Single Source	>10	>0.3	>1.0
Significant?	***No***	***No***	***No***
Cumulative Total*	<15.4	<0.2	<0.03
BAAQMD Threshold – Cumulative Sources	***>100***	***>0.8***	***>10.0***
Significant?	***No***	***No***	***No***

Note: Since screening risk is predicted at the nearest point on the project site from a given source, actual screening risk at the project MEI would be less than presented for the cumulative total.
***** The cumulative total has been calculated based on estimated risk values at the closest project point to each source as a conservative measure; actual cumulative risk at any given point on the site would be expected to be less.

4.2 Community Risk Impacts : Off-Site Receptors

As mentioned earlier, community health risk assessments typically look at all substantial sources of TACs that can affect sensitive receptors that are located within 1,000 feet of a project site. In addition to the above mentioned stationary and mobile sources of TAC emissions, emissions from project construction activity would have an impact on the off-site sensitive receptors. The following sections discuss the impacts from project construction and the cumulative impacts from all the aforementioned sources.

4.2.1 Project Construction Activity

Construction period emissions were computed using CalEEMod along with projected construction activity, as described above. As described in the project description, the project

incorporates the City's standard set of construction related conditions, which also reduce construction period exhaust emissions from on-site construction activity. These effects were included in the project construction emission modeling. The CalEEMod model provided total annual PM_{10} exhaust emissions (assumed to be DPM) for the off road construction equipment used for construction of the project and for the exhaust emissions from on-road vehicles (haul trucks, vendor trucks, and worker vehicles) of 0.0135 tons (27 pounds) over the approximate 24-month construction period. A trip length of one-half mile was used to represent vehicle travel while at or near the construction site. For modeling purposes, it was assumed that these emissions from on-road vehicles would occur at the construction site. Fugitive dust $PM_{2.5}$ emissions were also computed and included in this analysis. The model estimates emissions of 0.0826 tons of fugitive $PM_{2.5}$ (165 pounds). The construction schedule and equipment usage projections were provided and are included in *Attachment 2.*

Dispersion Modeling

The U.S. EPA ISCST3 dispersion model was used to predict concentrations of DPM and $PM_{2.5}$ concentrations at sensitive receptors (residences) in the vicinity of the project construction area. The ISCST3 dispersion model is a BAAQMD-recommended model for use in modeling analysis of these types of emission activities for CEQA projects.[15] Annual concentrations were computed for the three stages of construction during the years 2017 to 2019. For 2017, the ISCST3 modeling utilized six area sources to represent the on-site construction emissions, three for exhaust emissions and three for fugitive dust emissions, including site preparation. For 2018, ISCST3 utilized four area sources, two for exhaust emissions and two for fugitive dust emissions. For 2019, ISCST3 used two area sources, one for exhaust emissions and one for fugitive dust emissions, for the residential component. To represent the construction equipment exhaust emissions, an emission release height of 6 meters (19.7 feet) was used for the area source. The elevated source height reflects the height of the equipment exhaust pipes plus an additional distance for the height of the exhaust plume above the exhaust pipes to account for plume rise of the exhaust gases. For modeling fugitive $PM_{2.5}$ emissions, a near-ground level release height of 2 meters (6.6 feet) was used for the area source. Emissions from the construction equipment and on-road vehicle travel were distributed throughout the modeled area sources. Construction emissions were modeled as occurring daily between 7 a.m. to 4 p.m., when the majority of construction activity would occur.

The modeling used a 5-year meteorological data set (1990-1994) from Union City prepared for use with the ISCST3 model by BAAQMD. Annual DPM and $PM_{2.5}$ concentrations from construction activities during the 2017 - 2019 period were calculated using the model. DPM and $PM_{2.5}$ concentrations were calculated at nearby sensitive receptor locations. Receptor heights of 1.5 meter (4.9 feet) and 4.5 meter (14.6 feet) were used to represent the breathing heights of residents at the first and second floor levels of nearby apartments. A receptor height of 1 meter (3.3 feet) was used to represent the breathing height of the preschool students.

[15] Bay Area Air Quality Management District (BAAQMD), 2012, *Recommended Methods for Screening and Modeling Local Risks and Hazards, Version 3.0.* May.

Figure 3 shows the locations where the maximum-modeled DPM and $PM_{2.5}$ concentrations. Using the maximum annual modeled DPM concentrations, the maximum increased cancer risk at the location of the maximally exposed individual (MEI) was calculated.

Results of this assessment indicate that the maximum increased residential cancer risks would occur at the second floor level of a nearby multi-family residential apartment and would be 2.5 in one million for an infant/child exposure and 0.05 in one million for an adult exposure. The maximum residential excess cancer risk would not exceed the significance threshold of 10 in one million. The cancer risk at the maximally exposed school receptor was computed at 0.2 in one million for child exposure.

Predicted Annual $PM_{2.5}$ Concentration

The maximum-modeled annual $PM_{2.5}$ concentration, which is based on combined exhaust and fugitive dust emissions, was computed as 0.08 $\mu g/m^3$. This maximum annual $PM_{2.5}$ concentration would not exceed the BAAQMD significance threshold of 0.3 $\mu g/m^3$. The location of the maximum-modeled annual $PM_{2.5}$ concentration is shown in *Figure 3*. The maximum annual $PM_{2.5}$ concentration at the maximally exposed school receptor was found to be 0.02 $\mu g/m^3$, and would not exceed the BAAQMD significance threshold.

Non-Cancer Hazards

The maximum modeled annual residential DPM concentration (i.e., from construction exhaust) was found to be 0.0075 $\mu g/m^3$. The maximum computed Hazard Index (HI) based on this DPM concentration is 0.001, which is much lower than the BAAQMD significance criterion of a HI greater than 1.0.

4.2.2 Community Risk Impacts at the Construction Off-Site MEI

The cumulative impacts of TAC emissions from construction of the project, nearby stationary source and traffic on SR-238 (Mission Boulevard) on the construction MEI have been summarized in Table 5. As shown in Table 5, the sum of impacts from combined sources at the construction MEI would be below the thresholds of significance and this impact would be considered *less-than-significant*.

Table 5. Impact of combined sources at the Construction MEI

Source	**Maximum Cancer Risk (per million)**	**Maximum Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)**	**Maximum Hazard Index**
Unmitigated project construction	2.5	<0.1	<0..01
Plant G10686, Arco (Facility #09536) at ~ 475 ft	0.3	--	<0.01
Mission Boulevard	<1.3	<0.1	<0.01
Project Generators	1.8	0.0	<0.01
Cumulative Total	<5.9	<0.2	<0.04
BAAQMD Threshold – Cumulative	***>100***	***>0.8***	***>10.0***

Sources			
Significant?	***No***	***No***	***No***

4.2.3 Community Risk Impacts at the Operational Off-Site MEI

As previously described, two 150 hp back-up generators driven by diesel fueled engines would be associated with the hotel. The generators will be operated for testing and maintenance purposes, with a maximum of 36 hours per year of non-emergency operation under normal conditions. During testing periods the engine would typically be run for less than one hour under light engine loads. For calculating risks associated with generator emissions at the off-site MEI, emissions from the testing and maintenance of the generators were calculated using CalEEMod Version 2016.3.1. Results of generator modeling indicate average daily emissions of about 0.01 pounds of DPM per day. Risk and $PM_{2.5}$ concentrations from a diesel generator of this size and average daily emissions were then calculated based on BAAQMD's *Risk and Hazards Emissions Screening Calculator (Beta Version)*. Results indicate that the project generators would result in an excess cancer risk of 1.8 per million at the operational MEI,[16] $PM_{2.5}$ concentration of less than 0.01 $\mu g/m^3$ and HI of <0.01, all of which would be below BAAQMD thresholds of significance at nearby sensitive receptors. The operational MEI is located at the same location the the $_{PM2.5}$ MEI *(See Figure 3).* *Therefore, this impact would be considered less than significant. Attachment 4* includes emission factors and risk modeling calculations for the project emergency back-up generator.

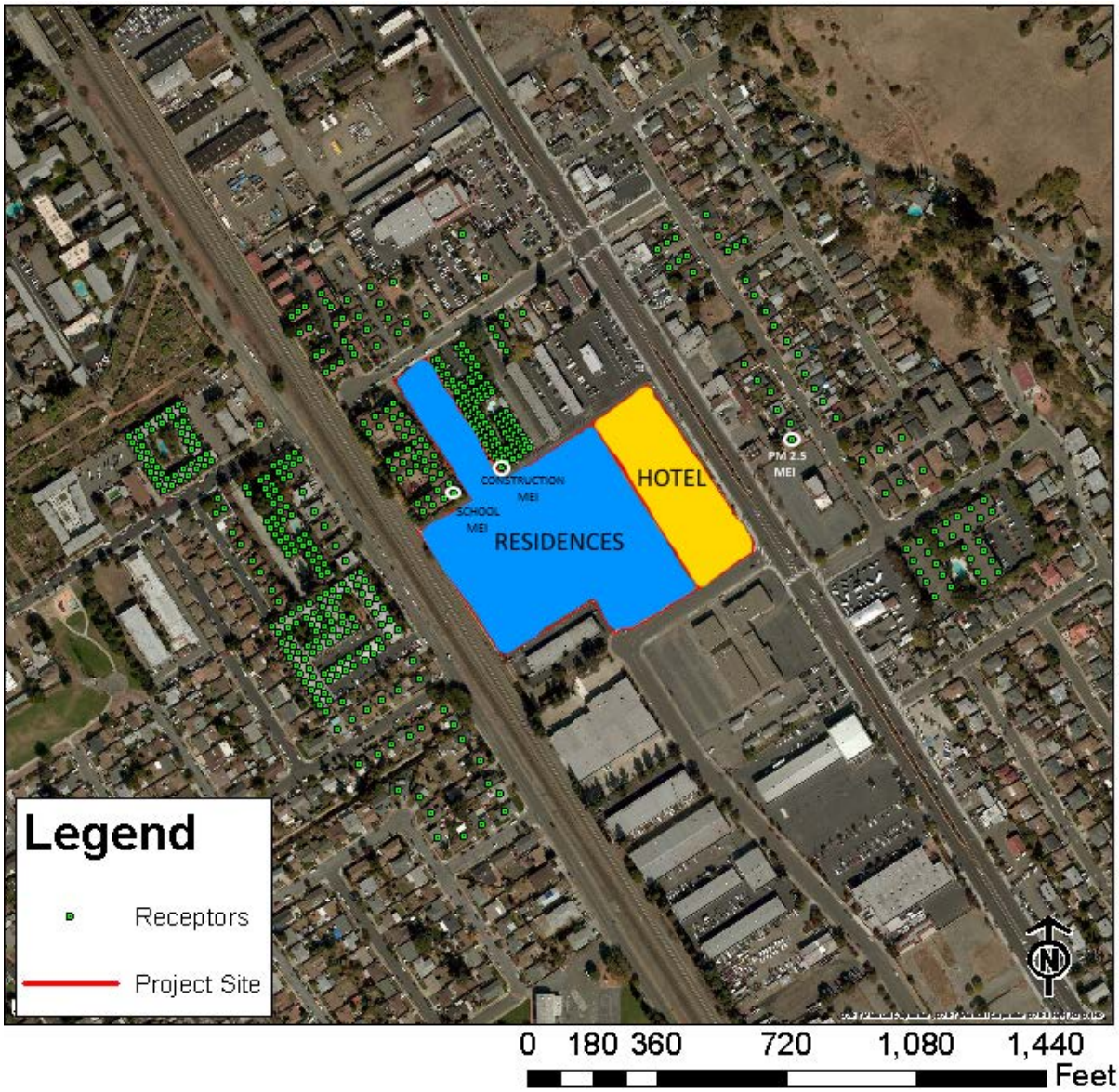
The cumulative impacts of TAC emissions from testing and maintenance of the project generator, Plant G10686, and traffic on Mission Boulevard on the operational MEI have been summarized in Table 6. As shown in Table 6, the sum of impacts from combined sources at the operational MEI would be below the thresholds of significance and this impact would be considered *less-than-significant.*

Table 6. Impact of Combined Sources at the Operational MEI

Source	**Maximum Cancer Risk (per million)**	**Maximum Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)**	**Maximum Hazard Index**
Project Generator	1.8	<0.01	<0.01
Plant G10686, Arco (Facility #09536) at ~ 475 ft	0.3	--	<0.01
Mission Boulevard	<1.3	<0.1	<0.01
Cumulative Total	<3.4	<0.2	<0.03
BAAQMD Threshold – Cumulative Sources	***>100***	***>0.8***	***>10.0***
Significant?	***No***	***No***	***No***

[16] Includes adjustment factor of 1.3744 to account for latest OEHHA methodology per correspondence with Alison Kirk, BAAQMD, November 23, 2015.

Figure 3. Project Construction Site and Area Sources used for Modeling, Sensitive Receptor Locations, and Locations of Maximum Exposed Individual (MEI) and Maximum $PM_{2.5}$ Concentration



Impact 5: Create objectionable odors affecting a substantial number of people?
Less-than-significant

The project would generate localized emissions of diesel exhaust during construction equipment operation and truck activity. These emissions may be noticeable from time to time by adjacent receptors. However, they would be localized and are not likely to adversely affect people off site by resulting in confirmed odor complaints. The project would not include any sources of significant odors that would cause complaints from surrounding uses. This would be a *less-than-significant* impact.

Impact 6: Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? ***Less than significant.***

GHG emissions associated with development of the proposed project would occur over the short-term from construction activities, consisting primarily of emissions from equipment exhaust and worker and vendor trips. There would also be long-term operational emissions associated with vehicular traffic within the project vicinity, energy and water usage, and solid waste disposal.

The project is within the *Mission Boulevard Corridor Specific Plan; therefore,* population and job growth from implementation of the proposed project was accounted for in the environmental assessment of the Specific Plan. As described under Impact GHG-1 of the Draft Program Environmental Impact Report for the Specific Plan, the Plan would generate long-term operational GHG emissions, but these would be below the BAAQMD's GHG efficiency-based threshold.[17] This is because that GHG analysis found the annual emissions for build-out of the plan to be 2.53 metric tons CO2e per service population, which was below the significance threshold of 6.6 metric tons CO2e per service population. Therefore, the project, as part of the Specific Plan, would not generate a significant level of GHG emissions. Thus, the impact would be considered ***less than significant.***

Supporting Information

Project data, assumptions and modeling output used in this study are provided in the Attachments to this report. Attachment 1 includes the methodology for computing community risk impacts. Attachment 2 consists of the construction schedule, the CalEEMod output file used for predicting the TAC (toxic air contaminants) emissions, the health risk calculations and the CalEEMod output files for Construction Criteria Pollutants and Greenhouse Gas Emissions. The results of SR-238 (Mission Boulevard) risk modeling are included in Attachment 3.The calculations and results of generator risk modeling for the on-site generators can be found in Attachment 4.

[17] Mission Boulevard Corridor Specific Plan, Draft Program EIR, Ch 10 Greenhouse Gas Emissions

Attachment 1: Health Risk Calculation Methodology

A health risk assessment (HRA) for exposure to Toxic Air Contaminates (TACs) requires the application of a risk characterization model to the results from the air dispersion model to estimate potential health risk at each sensitive receptor location. The State of California Office of Environmental Health Hazard Assessment (OEHHA) and California Air Resources Board (CARB) develop recommended methods for conducting health risk assessments. The most recent OEHHA risk assessment guidelines were published in February of 2015.[18] These guidelines incorporate substantial changes designed to provide for enhanced protection of children, as required by State law, compared to previous published risk assessment guidelines. CARB has provided additional guidance on implementing OEHHA's recommended methods.[19] This HRA used the recent 2015 OEHHA risk assessment guidelines and CARB guidance. The BAAQMD has adopted recommended procedures for applying the newest OEHHA guidelines as part of Regulation 2, Rule 5: New Source Review of Toxic Air Contaminants.[20] Exposure parameters from the OEHHA guidelines and the recent BAAQMD HRA Guidelines were used in this evaluation.

Cancer Risk

Potential increased cancer risk from inhalation of TACs are calculated based on the TAC concentration over the period of exposure, inhalation dose, the TAC cancer potency factor, and an age sensitivity factor to reflect the greater sensitivity of infants and children to cancer causing TACs. The inhalation dose depends on a person's breathing rate, exposure time and frequency of exposure, and the exposure duration. These parameters vary depending on the age, or age range, of the persons being exposed and whether the exposure is considered to occur at a residential location or other sensitive receptor location.

The current OEHHA guidance recommends that cancer risk be calculated by age groups to account for different breathing rates and sensitivity to TACs. Specifically, they recommend evaluating risks for the third trimester of pregnancy to age zero, ages zero to less than two (infant exposure), ages two to less than 16 (child exposure), and ages 16 to 70 (adult exposure). Age sensitivity factors (ASFs) associated with the different types of exposure are an ASF of 10 for the third trimester and infant exposures, an ASF of 3 for a child exposure, and an ASF of 1 for an adult exposure. Also associated with each exposure type are different breathing rates, expressed as liters per kilogram of body weight per day (L/kg-day). As recommended by the BAAQMD, 95th percentile breathing rates are used for the third trimester and infant exposures, and 80th percentile breathing rates for child and adult exposures. Additionally, CARB and the BAAQMD recommend the use of a residential exposure duration of 30 years for sources with long-term emissions (e.g., roadways).

Under previous OEHHA and BAAQMD HRA guidance, residential receptors are assumed to be at their home 24 hours a day, or 100 percent of the time. In the 2015 Risk Assessment Guidance, OEHHA includes adjustments to exposure duration to account for the fraction of time at home (FAH), which can be less than 100 percent of the time, based on updated population and activity statistics. The FAH factors are age-specific and are: 0.85 for third trimester of pregnancy to less than 2 years old, 0.72 for ages 2 to less than 16 years, and 0.73 for ages 16 to 70 years. Use of the FAH factors is allowed by the BAAQMD if there are no schools in the project vicinity that would have a cancer risk of one in a million or greater assuming 100 percent exposure (FAH = 1.0).

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[18] OEHHA, 2015. *Air Toxics Hot Spots Program Risk Assessment Guidelines, The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments.* Office of Environmental Health Hazard Assessment. February.

[19] CARB, 2015. *Risk Management Guidance for Stationary Sources of Air Toxics*. July 23.

[20] BAAQMD, 2016. *BAAQMD Air Toxics NSR Program Health Risk Assessment (HRA) Guidelines*. January 2016.

Functionally, cancer risk is calculated using the following parameters and formulas:

Cancer Risk (per million) = $CPF \times Inhalation\ Dose \times ASF \times ED/AT \times FAH \times 10^6$

Where:

CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = $C_{air} \times DBR \times A \times (EF/365) \times 10^{-6}$

Where:

C_{air} = concentration in air ($\mu g/m^3$)
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

The health risk parameters used in this evaluation are summarized as follows:

Parameter	*Exposure Type* →	Infant		Child		Adult
	Age Range →	3rd Trimester	0<2	2 < 9	2 < 16	16 - 30
DPM Cancer Potency Factor $(mg/kg\text{-}day)^{-1}$		1.10E+00	1.10E+00	1.10E+00	1.10E+00	1.10E+00
Daily Breathing Rate (L/kg-day)*		361	1,090	631	572	261
Inhalation Absorption Factor		1	1	1	1	1
Averaging Time (years)		70	70	70	70	70
Exposure Duration (years)		0.25	2	14	14	14
Exposure Frequency (days/year)		350	350	350	350	350
Age Sensitivity Factor		10	10	3	3	1
Fraction of Time at Home		0.85-1.0	0.85-1.0	0.72-1.0	0.72-1.0	0.73

* 95th percentile breathing rates for 3rd trimester and infants and 80th percentile for children and adults

Non-Cancer Hazards

Potential non-cancer health hazards from TAC exposure are expressed in terms of a hazard index (HI), which is the ratio of the TAC concentration to a reference exposure level (REL). OEHHA has defined acceptable concentration levels for contaminants that pose non-cancer health hazards. TAC concentrations below the REL are not expected to cause adverse health impacts, even for sensitive individuals. The total HI is calculated as the sum of the HIs for each TAC evaluated and the total HI is compared to the BAAQMD significance thresholds to determine whether a significant non-cancer health impact from a project would occur.

Typically, for residential projects located near roadways with substantial TAC emissions, the primary TAC of concern with non-cancer health effects is diesel particulate matter (DPM). For DPM, the chronic inhalation REL is 5 micrograms per cubic meter ($\mu g/m^3$).

Annual $PM_{2.5}$ Concentrations

While not a TAC, fine particulate matter ($PM_{2.5}$) has been identified by the BAAQMD as a pollutant with potential non-cancer health effects that should be included when evaluating potential community health

impacts under the California Environmental Quality Act (CEQA). The thresholds of significance for $PM_{2.5}$ (project level and cumulative) are in terms of an increase in the annual average concentration. When considering $PM_{2.5}$ impacts, the contribution from all sources of $PM_{2.5}$ emissions should be included. For projects with potential impacts from nearby local roadways, the $PM_{2.5}$ impacts should include those from vehicle exhaust emissions, $PM_{2.5}$ generated from vehicle tire and brake wear, and fugitive emissions from re-suspended dust on the roads.

Attachment 2: Construction Schedule, CalEEMod Output Files, Health Risk Calculations

Construction Schedule

Project Name: Hayward Ford Mixed-Use Development

See Equipment Type TAB for type, horsepower and load factor

Complete ALL Portions in Yellow

Project Size 144 Dwelling Units — 9.72 total project acres disturbed

_____ s.f. residential — 118,275 s.f. of gross residential floor area

_____ s.f. retail

6,800 s.f. office/commercial — Residential: 7.55 ac, Hotel: 2.13 ac, and Berry Ave 0.04 ac.

_____ s.f. other, specify:

9,825 s.f. parking garage — 25 spaces (HOTEL)

40,100 s.f. parking lot — 74 spaces (HOTEL)

Construction Hours _____ am to _____ pm

Construction Date: June 2017- July 2019

Qty	Description	HP	Load Factor	Hours/day	Total Work Days	Avg. Hours per day	Annual Hours	Comments		
	Demolition	**Start Date:**	**6/14/2017**	**Total phase:**	**20**			**Overall Import/Export Volumes**		
		End Date:	**7/14/2017**						**CBG**	
	Concrete/Industrial Saws	81	0.73	2 days (ind)		#VALUE!	#VALUE!	**Demolition Volume**	Inside the building	
1	Excavators	162	0.38	2 weeks	2 hours	#VALUE!	#VALUE!	Square footage of buildings to be demolished		
1	Rubber-Tired Dozers	255	0.4	2 weeks		#VALUE!	#VALUE!	(or total tons to be hauled)		
1	Tractors/Loaders/Backhoes	97	0.37	2 weeks		#VALUE!	#VALUE!	**?** square feet *or*	59,700 SF	
								_?_ Hauling volume (tons)		
	Site Preperation	**Start Date:**	**7/14/2017**	**Total phase:**	**20**			Any pavement demolished and hauled? **_?_ tons**	315,000 SF	30% would be used on site
		End Date:	**7/21/2017**							
	Graders	174	0.41			0	0			
	Rubber Tired Dozers	255	0.4			0	0			
	Tractors/Loaders/Backhoes	97	0.37			0	0			
	Grading / Excavation	**Start Date:**	**7/24/2017**	**Total phase:**	**60**					
		End Date:	**9/8/2017**					**Soil Hauling Volume**		
2	Scrapers	361	0.48	8 hours		#VALUE!	#VALUE!	Export volume = **?** cubic yards?		Start with Grading
1	Graders	174	0.41	8 hours		#VALUE!	#VALUE!	Import volume = **?** cubic yards?		
	Rubber Tired Dozers	255	0.4			0	0		**off-hauled dirt to be 15,000 yards**	
2	Tractors/Loaders/Backhoes	97	0.37	8		0	0			
	Other Equipment?									
	Trenching	**Start Date:**	**9/11/2017**	**Total phase:**	**40**					
		End Date:	**11/10/2017**							
1	Tractor/Loader/Backhoe	97	0.37	8 hr		#VALUE!	#VALUE!			
2	Excavators	162	0.38	8 hr		#VALUE!				
1	Trenchers	80	0.5	8 hr						
	Other Equipment?									
	Building - Exterior	**Start Date:**	**11/13/2017**	**Total phase:**	**0**			**Cement Trucks? _?_ Total Round-Trips**	Land development portion will at the time ; Concurent a phase or two of the residential construction	
		End Date:	**8/22/2018**						A total of 13 phases combined that would overlap	
0	Cranes	226	0.29			#DIV/0!	0	Electric? (Y/N) Otherwise assumed diesel	Not including the hjotel equipment	
2	Forklifts	89	0.2	8 hr		#VALUE!	#VALUE!	Liquid Propane (LPG)? (Y/N) Otherwise Assumed diesel		
0	Generator Sets	84	0.74			#DIV/0!	0	Or temporary line power? (Y/N) Yes		
2	Tractors/Loaders/Backhoes	97	0.37	8 hr		#VALUE!	#VALUE!			
0	Welders	46	0.45			#VALUE!	#VALUE!			
	Pump			1st 15 days at 8 hrs per day		#REF!				
	Building - Interior/Architectural Coating	**Start Date:**	**2/23/2018**	**Total phase:**	**0**				Only town home not including hotel	
		End Date:	**6/3/2019**							
2	Air Compressors	78	0.48			#DIV/0!	0			
	Aerial Lift	62	0.31			#DIV/0!	0			
	Equipment associated with air compressor									
1	*Pressure washers*	13	0.2	5 days/ 8 hr						
1	*Nail gun*									
1	*Plate Compactor*	8	0.43	5 days/8hr						
	Paving	**Start Date:**	**6/3/2019**	**Total phase:**	**20**					
		Start Date:	**7/1/2019**							
0	Cement and Mortar Mixers	9	0.56			0	0		82,000 SF	(RESIDENTIAL)
2	Pavers	125	0.42	10 days for 8 hrs		#VALUE!	#VALUE!	**Asphalt? ___ cubic yards or ____ round trips?**	40,100 SF	(HOTEL PARKING LOT)
	Paving Equipment	130	0.36			0	0			
2	Rollers	80	0.38	8 hrs		#VALUE!	#VALUE!		Will be implementing after grading	
2	Tractors/Loaders/Backhoes	97	0.37	8 hrs		#VALUE!	#VALUE!			
2	*skid steer loader*	64	0.37	8 hrs			#VALUE!			

Equipment types listed in "Equipment Types" worksheet tab.
Equipment listed in this sheet is to provide an example of inputs
It is assumed that water trucks would be used during grading
Add or subtract phases and equipment, as appropriate
Modify horsepower or load factor, as appropriate

Project Name: Hayward Ford Mixed-Use Development

See Equipment Type TAB for type, horsepower and load factor

Complete ALL Portions in Yellow

Project Size 144 Dwelling Units 9.72 total project acres disturbed

_____ s.f. residential — 118,275 s.f. of gross residential floor area

_____ s.f. retail — Residential: 7.55 ac. Hotel: 2.13 ac. and Berry Ave 0.04 ac.

6,800 s.f. office/commercial

_____ s.f. other, specify:

9,625 s.f. parking garage 25 spaces (HOTEL)

40,100 s.f. parking lot 74 spaces (HOTEL)

Construction Hours am to pm

Hotel Information

Construction Dates: June 2017 - January 2019

HOTEL INFORMATION

Qty	Description	HP	Load Factor	Hours/day	Total Work Days	Avg. Hours per day	Annual Hours	Comments						
	Demolition	**Start Date:**		**Total phase:**				**Overall Import/Export Volumes**						
		End Date:							**CBG**					
	Concrete/Industrial Saws	81	0.73			#DIV/0!	0	**Demolition Volume**	Inside the building					
	Excavators	162	0.38			#DIV/0!	0	Square footage of buildings to be demolished			2	3280	6560	
	Rubber Tired Dozers	255	0.4			#DIV/0!	0	(or total tons to be hauled)			14	4055	56770	
	Tractors/Loaders/Backhoes	97	0.37			#DIV/0!	0	? square feet or	59,700 SF		11	4095	54945	
								? Hauling volume (tons)					118275	
	Site Preperation	**Start Date:**		**Total phase:**				Any pavement demolished and hauled? ? tons	315,000 SF	30% would be used on site				
		End Date:												
	Graders	174	0.41			#DIV/0!	0							
	Rubber Tired Dozers	255	0.4			#DIV/0!	0							
	Tractors/Loaders/Backhoes	97	0.37			#DIV/0!	0							
	Grading / Excavation	**Start Date:**		**Total phase:**										
		End Date:						**Soil Hauling Volume**						
	Scrapers	361	0.48			#DIV/0!	0	Export volume = ? cubic yards?		Start with Grading				
	Graders	174	0.41			#DIV/0!	0	Import volume = ? cubic yards?						
	Rubber Tired Dozers	255	0.4			#DIV/0!	0		ASSUME BALANCED SITE					
	Tractors/Loaders/Backhoes	97	0.37			#DIV/0!	0							
	Other Equipment?													
	Trenching	**Start Date:**		**Total phase:**										
		End Date:												
	Trench/Loader/Backhoe	97	0.37			#DIV/0!	0							
	Excavators	162	0.38			#DIV/0!								
	Trenchers	80	0.5											
	Other Equipment?													
	Building - Exterior	**Start Date:**		**Total phase:**				**Cement Trucks? 7 Total Round-Trips**	Land development portion will at the time ; Concurent a phase or two of the residential construction					Estimating around 20,000 cubic yards of concrete = Approximately 200 total cement truck round trips
		End Date:							A total of 13 phases combined that would overlap					
	Cranes	226	0.29	8	45	#DIV/0!	0	(0) Diesel	Not including the hotel equipment					Diesel
	Forklifts	89	0.2	8	120	#DIV/0!	0	(0) Diesel						Diesel
	Generator Sets	84	0.74			#DIV/0!	0	Temporary Power Line						Temporary Power Line
	Tractors/Loaders/Backhoes	97	0.37	8	45	#DIV/0!	0	(2) Tractors (1) Loader (2) Backhoes						
	Welders	46	0.45			#DIV/0!	0							
	Pump					#REF!								
	Building - Interior/Architectural Coating	**Start Date:**		**Total phase:**					Only town home not including hotel					
		End Date:												**Number of days for each equipment type**
	Air Compressors	78	0.48			#DIV/0!	0							180
	Aerial Lift	62	0.31			#DIV/0!	0							120
	Equipment associated with air compressor													
1	Pressure washers	13	0.2											60
1	Nail gun													220
1	Plate Compactor	8	0.43											40
	Paving	**Start Date:**		**Total phase:**										
		Start Date:												
	Cement and Mortar Mixers	9	0.56	8	60	#DIV/0!	0		82,000 SF	(RESIDENTIAL)				
	Pavers	125	0.42			#DIV/0!	0	**40,100.00**	40,100 SF	(HOTEL PARKING LOT)				
	Paving Equipment	130	0.36	8	15	#DIV/0!	0							
	Rollers	80	0.38	8	15	#DIV/0!	0							
	Tractors/Loaders/Backhoes	97	0.37	8	30	#DIV/0!	0							
	Skid steer loader	64	0.37				0							

Equipment types listed in "Equipment Types" worksheet tab.
Equipment listed in this sheet is to provide an example of inputs
It is assumed that water trucks would be used during grading
Add or subtract phases and equipment, as appropriate
Modify horsepower or load factor, as appropriate

Site Preparation, TAC emissions, Mission Crossing

Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	9.73	Acre	9.73	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	429.6	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Revised CO2 Emission Intensity

Land Use - Site preparation work for both the residential and hotel components included

Construction Phase - Site preparation activities finished within 2017

Off-road Equipment -

Off-road Equipment - From applicant provided construction information

Off-road Equipment - From applicant provided construction information

Off-road Equipment - applicant provided construction information

Trips and VMT - Reduced trip lengths for health risk assessment

Demolition - 59700 sf of building+ 315000 sf of pavement demolished

Grading - 15000 cy off hauled dirt

Construction Off-road Equipment Mitigation - Best Management Practices
all equipment <25 HP, tier 4 Mitigation

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	20.00	60.00
tblGrading	MaterialExported	0.00	15,000.00
tblLandUse	GreenSpaceSquareFeet	423,838.80	0.00
tblLandUse	LandUseSquareFeet	423,838.80	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	UsageHours	8.00	0.80
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00

tblProjectCharacteristics	CO2IntensityFactor	641.35	429.6
tblProjectCharacteristics	OperationalYear	2018	2020
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.1610	2.0180	1.1499	1.9500e-003	0.2659	0.0865	0.3523	0.0369	0.0796	0.1165	0.0000	181.5659	181.5659	0.0536	0.0000	182.9048
Maximum	**0.1610**	**2.0180**	**1.1499**	**1.9500e-003**	**0.2659**	**0.0865**	**0.3523**	**0.0369**	**0.0796**	**0.1165**	**0.0000**	**181.5659**	**181.5659**	**0.0536**	**0.0000**	**182.9048**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0350	0.7539	1.0769	1.9500e-003	0.1202	3.1100e-003	0.1233	8.5400e-003	3.0900e-003	0.0116	0.0000	181.5657	181.5657	0.0536	0.0000	182.9046
Maximum	**0.0350**	**0.7539**	**1.0769**	**1.9500e-003**	**0.1202**	**3.1100e-003**	**0.1233**	**8.5400e-003**	**3.0900e-003**	**0.0116**	**0.0000**	**181.5657**	**181.5657**	**0.0536**	**0.0000**	**182.9046**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**78.29**	**62.64**	**6.35**	**0.00**	**54.78**	**96.40**	**65.00**	**76.88**	**96.12**	**90.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**6-14-2017**	**9-13-2017**	1.4538	0.5176
2	**9-14-2017**	**9-30-2017**	0.3291	0.1024
		Highest	1.4538	0.5176

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/14/2017	7/11/2017	5	20	
2	Grading	Grading	7/12/2017	10/3/2017	5	60	
3	Trenching	Trenching	10/4/2017	11/28/2017	5	40	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 150

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	0.80	81	0.73
Demolition	Excavators	1	4.00	158	0.38
Demolition	Rubber Tired Dozers	1	4.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Grading	Excavators	0	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Trenching	Excavators	2	8.00	158	0.38
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching	Trenchers	1	8.00	78	0.50

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	1,704.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Grading	5	13.00	0.00	1,875.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Trenching	4	10.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1844	0.0000	0.1844	0.0279	0.0000	0.0279	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0101	0.1059	0.0555	9.0000e-005		5.6900e-003	5.6900e-003		5.2600e-003	5.2600e-003	0.0000	8.3400	8.3400	2.4400e-003	0.0000	8.4010
Total	**0.0101**	**0.1059**	**0.0555**	**9.0000e-005**	**0.1844**	**5.6900e-003**	**0.1901**	**0.0279**	**5.2600e-003**	**0.0332**	**0.0000**	**8.3400**	**8.3400**	**2.4400e-003**	**0.0000**	**8.4010**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.2200e-003	0.0953	0.0132	1.1000e-004	3.8000e-004	1.4000e-004	5.1000e-004	1.1000e-004	1.3000e-004	2.4000e-004	0.0000	10.2264	10.2264	2.2400e-003	0.0000	10.2824
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	7.0000e-005	9.0000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0567	0.0567	0.0000	0.0000	0.0569
Total	**2.3700e-003**	**0.0953**	**0.0141**	**1.1000e-004**	**4.2000e-004**	**1.4000e-004**	**5.5000e-004**	**1.2000e-004**	**1.3000e-004**	**2.5000e-004**	**0.0000**	**10.2831**	**10.2831**	**2.2400e-003**	**0.0000**	**10.3393**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Fugitive Dust					0.0830	0.0000	0.0830	6.2800e-003	0.0000	6.2800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4800e-003	0.0316	0.0578	9.0000e-005		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	8.3400	8.3400	2.4400e-003	0.0000	8.4010
Total	**1.4800e-003**	**0.0316**	**0.0578**	**9.0000e-005**	**0.0830**	**1.5000e-004**	**0.0831**	**6.2800e-003**	**1.5000e-004**	**6.4300e-003**	**0.0000**	**8.3400**	**8.3400**	**2.4400e-003**	**0.0000**	**8.4010**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.2200e-003	0.0953	0.0132	1.1000e-004	3.8000e-004	1.4000e-004	5.1000e-004	1.1000e-004	1.3000e-004	2.4000e-004	0.0000	10.2264	10.2264	2.2400e-003	0.0000	10.2824
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	7.0000e-005	9.0000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0567	0.0567	0.0000	0.0000	0.0569
Total	**2.3700e-003**	**0.0953**	**0.0141**	**1.1000e-004**	**4.2000e-004**	**1.4000e-004**	**5.5000e-004**	**1.2000e-004**	**1.3000e-004**	**2.5000e-004**	**0.0000**	**10.2831**	**10.2831**	**2.2400e-003**	**0.0000**	**10.3393**

3.3 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0804	0.0000	0.0804	8.7200e-003	0.0000	8.7200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1143	1.4021	0.8245	1.2900e-003		0.0610	0.0610		0.0561	0.0561	0.0000	120.1601	120.1601	0.0368	0.0000	121.0805
Total	**0.1143**	**1.4021**	**0.8245**	**1.2900e-003**	**0.0804**	**0.0610**	**0.1414**	**8.7200e-003**	**0.0561**	**0.0648**	**0.0000**	**120.1601**	**120.1601**	**0.0368**	**0.0000**	**121.0805**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.4400e-003	0.1048	0.0145	1.2000e-004	4.2000e-004	1.5000e-004	5.7000e-004	1.2000e-004	1.4000e-004	2.6000e-004	0.0000	11.2526	11.2526	2.4700e-003	0.0000	11.3143
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	2.7000e-004	3.5100e-003	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.2212	0.2212	2.0000e-005	0.0000	0.2217
Total	**3.0300e-003**	**0.1051**	**0.0180**	**1.2000e-004**	**5.7000e-004**	**1.5000e-004**	**7.2000e-004**	**1.6000e-004**	**1.4000e-004**	**3.0000e-004**	**0.0000**	**11.4739**	**11.4739**	**2.4900e-003**	**0.0000**	**11.5360**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0362	0.0000	0.0362	1.9600e-003	0.0000	1.9600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0223	0.3741	0.7307	1.2900e-003		2.1200e-003	2.1200e-003		2.1200e-003	2.1200e-003	0.0000	120.1600	120.1600	0.0368	0.0000	121.0804
Total	**0.0223**	**0.3741**	**0.7307**	**1.2900e-003**	**0.0362**	**2.1200e-003**	**0.0383**	**1.9600e-003**	**2.1200e-003**	**4.0800e-003**	**0.0000**	**120.1600**	**120.1600**	**0.0368**	**0.0000**	**121.0804**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Hauling	2.4400e-003	0.1048	0.0145	1.2000e-004	4.2000e-004	1.5000e-004	5.7000e-004	1.2000e-004	1.4000e-004	2.6000e-004	0.0000	11.2526	11.2526	2.4700e-003	0.0000	11.3143
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	2.7000e-004	3.5100e-003	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.2212	0.2212	2.0000e-005	0.0000	0.2217
Total	**3.0300e-003**	**0.1051**	**0.0180**	**1.2000e-004**	**5.7000e-004**	**1.5000e-004**	**7.2000e-004**	**1.6000e-004**	**1.4000e-004**	**3.0000e-004**	**0.0000**	**11.4739**	**11.4739**	**2.4900e-003**	**0.0000**	**11.5360**

3.4 Trenching - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0309	0.3095	0.2359	3.4000e-004		0.0195	0.0195		0.0179	0.0179	0.0000	31.1954	31.1954	9.5600e-003	0.0000	31.4343
Total	**0.0309**	**0.3095**	**0.2359**	**3.4000e-004**		**0.0195**	**0.0195**		**0.0179**	**0.0179**	**0.0000**	**31.1954**	**31.1954**	**9.5600e-003**	**0.0000**	**31.4343**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-004	1.4000e-004	1.8000e-003	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.1135	0.1135	1.0000e-005	0.0000	0.1137

Total	**3.0000e-004**	**1.4000e-004**	**1.8000e-003**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.1135**	**0.1135**	**1.0000e-005**	**0.0000**	**0.1137**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.4500e-003	0.1476	0.2545	3.4000e-004		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	31.1953	31.1953	9.5600e-003	0.0000	31.4343
Total	**5.4500e-003**	**0.1476**	**0.2545**	**3.4000e-004**		**5.5000e-004**	**5.5000e-004**		**5.5000e-004**	**5.5000e-004**	**0.0000**	**31.1953**	**31.1953**	**9.5600e-003**	**0.0000**	**31.4343**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-004	1.4000e-004	1.8000e-003	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.1135	0.1135	1.0000e-005	0.0000	0.1137
Total	**3.0000e-004**	**1.4000e-004**	**1.8000e-003**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.1135**	**0.1135**	**1.0000e-005**	**0.0000**	**0.1137**

Mission Crossing Mariott, TAC

Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	104.00	Space	0.94	41,600.00	0
Hotel	93.00	Room	1.16	135,036.00	0
Strip Mall	7.22	1000sqft	0.00	7,225.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	429.6	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Revised CO2 Emission Intensity

Land Use - From the recent project description

Construction Phase - Applicant provided construction schedule

Off-road Equipment - Applicant provided equipment information

Off-road Equipment - From Applicant provided Information

Off-road Equipment - Applicant provided equipment information

Off-road Equipment - from applicant provided equipment information

Trips and VMT - 95 trips based on 41,000 sf of pavement

On-road Fugitive Dust - Duplication of phases

Architectural Coating -

Construction Off-road Equipment Mitigation - Best Management Practices
Tier 4 Mitigation

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	10.00	220.00

tblConstructionPhase	NumDays	220.00	120.00
tblConstructionPhase	NumDays	10.00	60.00
tblFleetMix	FleetMixLandUseSubType	Parking Lot	Hotel
tblFleetMix	FleetMixLandUseSubType	Hotel	Parking Lot
tblLandUse	BuildingSpaceSquareFeet	7,220.00	7,225.00
tblLandUse	LandUseSquareFeet	7,220.00	7,225.00
tblLandUse	LotAcreage	3.10	1.16
tblLandUse	LotAcreage	0.17	0.00
tblOffRoadEquipment	LoadFactor	0.37	0.36
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	UsageHours	8.00	3.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	6.00	3.00
tblOffRoadEquipment	UsageHours	6.00	3.00
tblOffRoadEquipment	UsageHours	6.00	3.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	VendorPercentPave	100.00	0.00
tblOnRoadDust	VendorPercentPave	100.00	0.00
tblOnRoadDust	WorkerPercentPave	100.00	0.00

tblOnRoadDust	WorkerPercentPave	100.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	429.6
tblProjectCharacteristics	OperationalYear	2018	2020
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripNumber	0.00	400.00
tblTripsAndVMT	HaulingTripNumber	0.00	95.00
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					

2017	0.0334	0.3445	0.2036	3.1000e-004	8.3000e-004	0.0201	0.0209	2.3000e-004	0.0185	0.0187	0.0000	29.0053	29.0053	8.2900e-003	0.0000	29.2126
2018	0.8707	1.1130	0.8645	1.3700e-003	1.1566	0.0642	1.2208	0.1159	0.0604	0.1764	0.0000	122.7913	122.7913	0.0297	0.0000	123.5335
Maximum	**0.8707**	**1.1130**	**0.8645**	**1.3700e-003**	**1.1566**	**0.0642**	**1.2208**	**0.1159**	**0.0604**	**0.1764**	**0.0000**	**122.7913**	**122.7913**	**0.0297**	**0.0000**	**123.5335**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	8.6600e-003	0.1456	0.2006	3.1000e-004	8.3000e-004	5.3000e-004	1.3500e-003	2.3000e-004	5.2000e-004	7.5000e-004	0.0000	29.0053	29.0053	8.2900e-003	0.0000	29.2126
2018	0.7867	0.5941	0.8824	1.3700e-003	0.7093	5.0300e-003	0.7143	0.0712	5.0100e-003	0.0762	0.0000	122.7912	122.7912	0.0297	0.0000	123.5333
Maximum	**0.7867**	**0.5941**	**0.8824**	**1.3700e-003**	**0.7093**	**5.0300e-003**	**0.7143**	**0.0712**	**5.0100e-003**	**0.0762**	**0.0000**	**122.7912**	**122.7912**	**0.0297**	**0.0000**	**123.5333**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**12.03**	**49.25**	**-1.40**	**0.00**	**38.65**	**93.40**	**42.37**	**38.51**	**92.99**	**60.55**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**11-13-2017**	**2-12-2018**	0.6676	0.2870
2	**2-13-2018**	**5-12-2018**	0.5194	0.2397
3	**5-13-2018**	**8-12-2018**	0.0880	0.0434
		Highest	0.6676	0.2870

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description

1	Building Construction	Building Construction	11/13/2017	4/27/2018	5	120	
2	Architiectural Coating	Architectural Coating	2/5/2018	12/7/2018	5	220	
3	Paving	Paving	4/28/2018	7/20/2018	5	60	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.94

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 213,392; Non-Residential Outdoor: 71,131; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Cranes	2	3.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	2	3.00	97	0.37
Building Construction	Tractors/Loaders/Backhoes	1	3.00	97	0.36
Building Construction	Tractors/Loaders/Backhoes	2	3.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45
Architiectural Coating	Aerial Lifts	1	6.00	63	0.31
Architiectural Coating	Air Compressors	1	6.00	78	0.48
Architiectural Coating	Plate Compactors	1	0.30	8	0.43
Architiectural Coating	Pressure Washers	1	0.30	13	0.30
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	0	8.00	130	0.42
Paving	Paving Equipment	1	2.00	132	0.36
Paving	Rollers	1	2.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	4.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	10	77.00	30.00	400.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Architiectural Coating	4	15.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Paving	4	10.00	0.00	95.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Paving	4	10.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Paving	4	10.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0301	0.2984	0.1807	2.6000e-004		0.0200	0.0200		0.0184	0.0184	0.0000	23.8897	23.8897	7.3200e-003	0.0000	24.0727
Total	**0.0301**	**0.2984**	**0.1807**	**2.6000e-004**		**0.0200**	**0.0200**		**0.0184**	**0.0184**	**0.0000**	**23.8897**	**23.8897**	**7.3200e-003**	**0.0000**	**24.0727**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.5000e-004	6.5200e-003	9.0000e-004	1.0000e-005	7.0000e-005	1.0000e-005	8.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.7002	0.7002	1.5000e-004	0.0000	0.7040
Vendor	1.1500e-003	0.0386	9.8600e-003	4.0000e-005	2.5000e-004	8.0000e-005	3.3000e-004	7.0000e-005	8.0000e-005	1.5000e-004	0.0000	3.6511	3.6511	7.5000e-004	0.0000	3.6699
Worker	2.0300e-003	9.3000e-004	0.0121	1.0000e-005	5.1000e-004	1.0000e-005	5.2000e-004	1.4000e-004	1.0000e-005	1.5000e-004	0.0000	0.7644	0.7644	7.0000e-005	0.0000	0.7661
Total	**3.3300e-003**	**0.0461**	**0.0229**	**6.0000e-005**	**8.3000e-004**	**1.0000e-004**	**9.3000e-004**	**2.3000e-004**	**1.0000e-004**	**3.3000e-004**	**0.0000**	**5.1157**	**5.1157**	**9.7000e-004**	**0.0000**	**5.1399**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.3300e-003	0.0995	0.1777	2.6000e-004		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004	0.0000	23.8897	23.8897	7.3200e-003	0.0000	24.0726
Total	**5.3300e-003**	**0.0995**	**0.1777**	**2.6000e-004**		**4.2000e-004**	**4.2000e-004**		**4.2000e-004**	**4.2000e-004**	**0.0000**	**23.8897**	**23.8897**	**7.3200e-003**	**0.0000**	**24.0726**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.5000e-004	6.5200e-003	9.0000e-004	1.0000e-005	7.0000e-005	1.0000e-005	8.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.7002	0.7002	1.5000e-004	0.0000	0.7040

Vendor	1.1500e-003	0.0386	9.8600e-003	4.0000e-005	2.5000e-004	8.0000e-005	3.3000e-004	7.0000e-005	8.0000e-005	1.5000e-004	0.0000	3.6511	3.6511	7.5000e-004	0.0000	3.6699
Worker	2.0300e-003	9.3000e-004	0.0121	1.0000e-005	5.1000e-004	1.0000e-005	5.2000e-004	1.4000e-004	1.0000e-005	1.5000e-004	0.0000	0.7644	0.7644	7.0000e-005	0.0000	0.7661
Total	**3.3300e-003**	**0.0461**	**0.0229**	**6.0000e-005**	**8.3000e-004**	**1.0000e-004**	**9.3000e-004**	**2.3000e-004**	**1.0000e-004**	**3.3000e-004**	**0.0000**	**5.1157**	**5.1157**	**9.7000e-004**	**0.0000**	**5.1399**

3.2 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0620	0.6266	0.4200	6.2000e-004		0.0402	0.0402		0.0370	0.0370	0.0000	57.0656	57.0656	0.0178	0.0000	57.5098
Total	**0.0620**	**0.6266**	**0.4200**	**6.2000e-004**		**0.0402**	**0.0402**		**0.0370**	**0.0370**	**0.0000**	**57.0656**	**57.0656**	**0.0178**	**0.0000**	**57.5098**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.3000e-004	0.0154	2.0300e-003	2.0000e-005	8.0000e-005	2.0000e-005	1.0000e-004	2.0000e-005	1.0000e-005	4.0000e-005	0.0000	1.7264	1.7264	3.4000e-004	0.0000	1.7350
Vendor	2.5000e-003	0.0915	0.0217	9.0000e-005	6.0000e-004	1.5000e-004	7.6000e-004	1.8000e-004	1.5000e-004	3.2000e-004	0.0000	8.9802	8.9802	1.6800e-003	0.0000	9.0223
Worker	4.4100e-003	1.9700e-003	0.0261	2.0000e-005	1.2300e-003	3.0000e-005	1.2600e-003	3.3000e-004	3.0000e-005	3.6000e-004	0.0000	1.8090	1.8090	1.4000e-004	0.0000	1.8125
Total	**7.2400e-003**	**0.1089**	**0.0498**	**1.3000e-004**	**1.9100e-003**	**2.0000e-004**	**2.1200e-003**	**5.3000e-004**	**1.9000e-004**	**7.2000e-004**	**0.0000**	**12.5156**	**12.5156**	**2.1600e-003**	**0.0000**	**12.5698**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0129	0.2416	0.4316	6.2000e-004		1.0200e-003	1.0200e-003		1.0200e-003	1.0200e-003	0.0000	57.0656	57.0656	0.0178	0.0000	57.5097
Total	**0.0129**	**0.2416**	**0.4316**	**6.2000e-004**		**1.0200e-003**	**1.0200e-003**		**1.0200e-003**	**1.0200e-003**	**0.0000**	**57.0656**	**57.0656**	**0.0178**	**0.0000**	**57.5097**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.3000e-004	0.0154	2.0300e-003	2.0000e-005	8.0000e-005	2.0000e-005	1.0000e-004	2.0000e-005	1.0000e-005	4.0000e-005	0.0000	1.7264	1.7264	3.4000e-004	0.0000	1.7350
Vendor	2.5000e-003	0.0915	0.0217	9.0000e-005	6.0000e-004	1.5000e-004	7.6000e-004	1.8000e-004	1.5000e-004	3.2000e-004	0.0000	8.9802	8.9802	1.6800e-003	0.0000	9.0223
Worker	4.4100e-003	1.9700e-003	0.0261	2.0000e-005	1.2300e-003	3.0000e-005	1.2600e-003	3.3000e-004	3.0000e-005	3.6000e-004	0.0000	1.8090	1.8090	1.4000e-004	0.0000	1.8125
Total	**7.2400e-003**	**0.1089**	**0.0498**	**1.3000e-004**	**1.9100e-003**	**2.0000e-004**	**2.1200e-003**	**5.3000e-004**	**1.9000e-004**	**7.2000e-004**	**0.0000**	**12.5156**	**12.5156**	**2.1600e-003**	**0.0000**	**12.5698**

3.3 Architiectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Archit. Coating	0.7505					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0367	0.2817	0.2958	4.7000e-004		0.0183	0.0183		0.0182	0.0182	0.0000	41.0054	41.0054	6.6300e-003	0.0000	41.1712
Total	**0.7872**	**0.2817**	**0.2958**	**4.7000e-004**		**0.0183**	**0.0183**		**0.0182**	**0.0182**	**0.0000**	**41.0054**	**41.0054**	**6.6300e-003**	**0.0000**	**41.1712**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2300e-003	1.0000e-003	0.0131	1.0000e-005	6.2000e-004	1.0000e-005	6.3000e-004	1.7000e-004	1.0000e-005	1.8000e-004	0.0000	0.9121	0.9121	7.0000e-005	0.0000	0.9139
Total	**2.2300e-003**	**1.0000e-003**	**0.0131**	**1.0000e-005**	**6.2000e-004**	**1.0000e-005**	**6.3000e-004**	**1.7000e-004**	**1.0000e-005**	**1.8000e-004**	**0.0000**	**0.9121**	**0.9121**	**7.0000e-005**	**0.0000**	**0.9139**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7505					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.4000e-003	0.1944	0.3067	4.7000e-004		3.6200e-003	3.6200e-003		3.6200e-003	3.6200e-003	0.0000	41.0053	41.0053	6.6300e-003	0.0000	41.1712

Total	**0.7599**	**0.1944**	**0.3067**	**4.7000e-004**		**3.6200e-003**	**3.6200e-003**		**3.6200e-003**	**3.6200e-003**	**0.0000**	**41.0053**	**41.0053**	**6.6300e-003**	**0.0000**	**41.1712**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2300e-003	1.0000e-003	0.0131	1.0000e-005	6.2000e-004	1.0000e-005	6.3000e-004	1.7000e-004	1.0000e-005	1.8000e-004	0.0000	0.9121	0.9121	7.0000e-005	0.0000	0.9139
Total	**2.2300e-003**	**1.0000e-003**	**0.0131**	**1.0000e-005**	**6.2000e-004**	**1.0000e-005**	**6.3000e-004**	**1.7000e-004**	**1.0000e-005**	**1.8000e-004**	**0.0000**	**0.9121**	**0.9121**	**7.0000e-005**	**0.0000**	**0.9139**

3.4 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.4700e-003	0.0891	0.0778	1.2000e-004		5.4900e-003	5.4900e-003		5.0900e-003	5.0900e-003	0.0000	10.2162	10.2162	2.9000e-003	0.0000	10.2886
Paving	1.2300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0107**	**0.0891**	**0.0778**	**1.2000e-004**		**5.4900e-003**	**5.4900e-003**		**5.0900e-003**	**5.0900e-003**	**0.0000**	**10.2162**	**10.2162**	**2.9000e-003**	**0.0000**	**10.2886**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.1000e-004	5.1600e-003	6.8000e-004	1.0000e-005	0.0579	1.0000e-005	0.0579	5.7800e-003	0.0000	5.7800e-003	0.0000	0.5789	0.5789	1.2000e-004	0.0000	0.5817
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2100e-003	5.4000e-004	7.1600e-003	1.0000e-005	1.0962	1.0000e-005	1.0962	0.1095	1.0000e-005	0.1095	0.0000	0.4975	0.4975	4.0000e-005	0.0000	0.4985
Total	**1.3200e-003**	**5.7000e-003**	**7.8400e-003**	**2.0000e-005**	**1.1541**	**2.0000e-005**	**1.1541**	**0.1152**	**1.0000e-005**	**0.1152**	**0.0000**	**1.0764**	**1.0764**	**1.6000e-004**	**0.0000**	**1.0802**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.8600e-003	0.0424	0.0733	1.2000e-004		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	10.2162	10.2162	2.9000e-003	0.0000	10.2886
Paving	1.2300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.0900e-003**	**0.0424**	**0.0733**	**1.2000e-004**		**1.6000e-004**	**1.6000e-004**		**1.6000e-004**	**1.6000e-004**	**0.0000**	**10.2162**	**10.2162**	**2.9000e-003**	**0.0000**	**10.2886**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	1.1000e-004	5.1600e-003	6.8000e-004	1.0000e-005	0.0354	1.0000e-005	0.0354	3.5300e-003	0.0000	3.5400e-003	0.0000	0.5789	0.5789	1.2000e-004	0.0000	0.5817
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2100e-003	5.4000e-004	7.1600e-003	1.0000e-005	0.6713	1.0000e-005	0.6713	0.0670	1.0000e-005	0.0670	0.0000	0.4975	0.4975	4.0000e-005	0.0000	0.4985
Total	**1.3200e-003**	**5.7000e-003**	**7.8400e-003**	**2.0000e-005**	**0.7067**	**2.0000e-005**	**0.7068**	**0.0705**	**1.0000e-005**	**0.0705**	**0.0000**	**1.0764**	**1.0764**	**1.6000e-004**	**0.0000**	**1.0802**

Mission Crossings Residential, TAC emissions

Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	200.00	Space	0.00	80,000.00	0
Parking Lot	117.00	Space	1.05	46,800.00	0
Condo/Townhouse	141.00	Dwelling Unit	6.71	119,495.00	403

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2019
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	429.6	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Revised CO2 Emission Intensity

Land Use - Land Use Sizes from the updated project description

Construction Phase - from applicant provided construction schedule

Off-road Equipment - Applicant provided equipment information

Off-road Equipment - Applicant provided construction information

Off-road Equipment - From applicant provided construction information

Off-road Equipment - Applicant provided construction information

Trips and VMT - 41000 cf of pavement= 1520 cy of pavement= 1520/16=95 round trips

On-road Fugitive Dust -

Demolition -

Grading -

Construction Off-road Equipment Mitigation - best managment practices
Tier 4 Mitigation

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	20.00	332.00
tblConstructionPhase	NumDays	230.00	203.00
tblFleetMix	FleetMixLandUseSubType	Enclosed Parking Structure	Condo/Townhouse
tblFleetMix	FleetMixLandUseSubType	Parking Lot	Enclosed Parking Structure

tblFleetMix	FleetMixLandUseSubType	Condo/Townhouse	Parking Lot
tblLandUse	BuildingSpaceSquareFeet	141,000.00	119,495.00
tblLandUse	LandUseSquareFeet	141,000.00	119,495.00
tblLandUse	LotAcreage	1.80	0.00
tblLandUse	LotAcreage	8.81	6.71
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	429.6
tblProjectCharacteristics	OperationalYear	2018	2019
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripNumber	0.00	190.00
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0247	0.2247	0.1688	2.3000e-004	1.3200e-003	0.0138	0.0151	3.6000e-004	0.0128	0.0131	0.0000	21.7286	21.7286	5.7200e-003	0.0000	21.8715
2018	0.7527	1.4057	1.2148	1.8100e-003	7.6100e-003	0.0881	0.0957	2.0900e-003	0.0839	0.0860	0.0000	161.8417	161.8417	0.0325	0.0000	162.6541
2019	0.3345	0.3587	0.3586	5.5000e-004	7.6000e-004	0.0228	0.0236	2.0000e-004	0.0221	0.0224	0.0000	48.5381	48.5381	8.4300e-003	0.0000	48.7490
Maximum	**0.7527**	**1.4057**	**1.2148**	**1.8100e-003**	**7.6100e-003**	**0.0881**	**0.0957**	**2.0900e-003**	**0.0839**	**0.0860**	**0.0000**	**161.8417**	**161.8417**	**0.0325**	**0.0000**	**162.6541**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	9.2700e-003	0.1223	0.1642	2.3000e-004	1.3200e-003	4.0000e-004	1.7200e-003	3.6000e-004	3.9000e-004	7.6000e-004	0.0000	21.7286	21.7286	5.7200e-003	0.0000	21.8715
2018	0.6386	0.8175	1.2035	1.8100e-003	7.6100e-003	2.7200e-003	0.0103	2.0900e-003	2.6900e-003	4.7800e-003	0.0000	161.8416	161.8416	0.0325	0.0000	162.6539
2019	0.3015	0.2216	0.3698	5.5000e-004	7.6000e-004	1.6800e-003	2.4300e-003	2.0000e-004	1.6700e-003	1.8800e-003	0.0000	48.5380	48.5380	8.4300e-003	0.0000	48.7489
Maximum	**0.6386**	**0.8175**	**1.2035**	**1.8100e-003**	**7.6100e-003**	**2.7200e-003**	**0.0103**	**2.0900e-003**	**2.6900e-003**	**4.7800e-003**	**0.0000**	**161.8416**	**161.8416**	**0.0325**	**0.0000**	**162.6539**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**14.61**	**41.61**	**0.27**	**0.00**	**0.00**	**96.15**	**89.23**	**0.00**	**96.00**	**93.89**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**11-13-2017**	**2-12-2018**	0.4419	0.2441
2	**2-13-2018**	**5-12-2018**	0.6807	0.4479

3	**5-13-2018**	**8-12-2018**	0.7420	0.4925
4	**8-13-2018**	**11-12-2018**	0.3708	0.2738
5	**11-13-2018**	**2-12-2019**	0.3191	0.2469
6	**2-13-2019**	**5-12-2019**	0.3019	0.2388
7	**5-13-2019**	**8-12-2019**	0.2337	0.1615
		Highest	0.7420	0.4925

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	11/13/2017	8/22/2018	5	203	
2	Architectural Coating	Architectural Coating	2/23/2018	6/3/2019	5	332	
3	Paving	Paving	6/3/2019	6/28/2019	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 1.05

Residential Indoor: 241,977; Residential Outdoor: 80,659; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Cranes	0	7.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Pumps	1	0.60	84	0.74
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45
Paving	Pavers	2	4.00	130	0.42
Paving	Paving Equipment	0	8.00	132	0.36

Paving	Rollers	2	8.00	80	0.38
Paving	Skid Steer Loaders	2	8.00	65	0.37
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	2	6.00	78	0.48
Architectural Coating	Plate Compactors	1	0.10	8	0.43
Architectural Coating	Pressure Washers	1	0.10	13	0.30

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	5	155.00	36.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	190.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Architectural Coating	4	31.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0193	0.1764	0.1325	1.7000e-004		0.0137	0.0137		0.0126	0.0126	0.0000	15.8085	15.8085	4.6800e-003	0.0000	15.9255

Total	**0.0193**	**0.1764**	**0.1325**	**1.7000e-004**		**0.0137**	**0.0137**		**0.0126**	**0.0126**	**0.0000**	**15.8085**	**15.8085**	**4.6800e-003**	**0.0000**	**15.9255**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3800e-003	0.0464	0.0118	5.0000e-005	3.0000e-004	1.0000e-004	4.0000e-004	9.0000e-005	9.0000e-005	1.8000e-004	0.0000	4.3813	4.3813	9.0000e-004	0.0000	4.4038
Worker	4.0800e-003	1.8800e-003	0.0244	2.0000e-005	1.0200e-003	3.0000e-005	1.0400e-003	2.7000e-004	2.0000e-005	3.0000e-004	0.0000	1.5388	1.5388	1.3000e-004	0.0000	1.5421
Total	**5.4600e-003**	**0.0482**	**0.0363**	**7.0000e-005**	**1.3200e-003**	**1.3000e-004**	**1.4400e-003**	**3.6000e-004**	**1.1000e-004**	**4.8000e-004**	**0.0000**	**5.9201**	**5.9201**	**1.0300e-003**	**0.0000**	**5.9459**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.8000e-003	0.0740	0.1280	1.7000e-004		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	15.8085	15.8085	4.6800e-003	0.0000	15.9255
Total	**3.8000e-003**	**0.0740**	**0.1280**	**1.7000e-004**		**2.8000e-004**	**2.8000e-004**		**2.8000e-004**	**2.8000e-004**	**0.0000**	**15.8085**	**15.8085**	**4.6800e-003**	**0.0000**	**15.9255**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3800e-003	0.0464	0.0118	5.0000e-005	3.0000e-004	1.0000e-004	4.0000e-004	9.0000e-005	9.0000e-005	1.8000e-004	0.0000	4.3813	4.3813	9.0000e-004	0.0000	4.4038
Worker	4.0800e-003	1.8800e-003	0.0244	2.0000e-005	1.0200e-003	3.0000e-005	1.0400e-003	2.7000e-004	2.0000e-005	3.0000e-004	0.0000	1.5388	1.5388	1.3000e-004	0.0000	1.5421
Total	**5.4600e-003**	**0.0482**	**0.0363**	**7.0000e-005**	**1.3200e-003**	**1.3000e-004**	**1.4400e-003**	**3.6000e-004**	**1.1000e-004**	**4.8000e-004**	**0.0000**	**5.9201**	**5.9201**	**1.0300e-003**	**0.0000**	**5.9459**

3.2 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0780	0.7326	0.6200	8.2000e-004		0.0542	0.0542		0.0500	0.0500	0.0000	74.6684	74.6684	0.0224	0.0000	75.2285
Total	**0.0780**	**0.7326**	**0.6200**	**8.2000e-004**		**0.0542**	**0.0542**		**0.0500**	**0.0500**	**0.0000**	**74.6684**	**74.6684**	**0.0224**	**0.0000**	**75.2285**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.9300e-003	0.2171	0.0515	2.2000e-004	1.4300e-003	3.6000e-004	1.8000e-003	4.2000e-004	3.5000e-004	7.7000e-004	0.0000	21.2989	21.2989	3.9900e-003	0.0000	21.3987
Worker	0.0176	7.8500e-003	0.1036	8.0000e-005	4.8900e-003	1.2000e-004	5.0100e-003	1.3200e-003	1.1000e-004	1.4200e-003	0.0000	7.1974	7.1974	5.5000e-004	0.0000	7.2112
Total	**0.0235**	**0.2250**	**0.1551**	**3.0000e-004**	**6.3200e-003**	**4.8000e-004**	**6.8100e-003**	**1.7400e-003**	**4.6000e-004**	**2.1900e-003**	**0.0000**	**28.4963**	**28.4963**	**4.5400e-003**	**0.0000**	**28.6099**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0183	0.3552	0.6142	8.2000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003	0.0000	74.6683	74.6683	0.0224	0.0000	75.2284
Total	**0.0183**	**0.3552**	**0.6142**	**8.2000e-004**		**1.3300e-003**	**1.3300e-003**		**1.3300e-003**	**1.3300e-003**	**0.0000**	**74.6683**	**74.6683**	**0.0224**	**0.0000**	**75.2284**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.9300e-003	0.2171	0.0515	2.2000e-004	1.4300e-003	3.6000e-004	1.8000e-003	4.2000e-004	3.5000e-004	7.7000e-004	0.0000	21.2989	21.2989	3.9900e-003	0.0000	21.3987
Worker	0.0176	7.8500e-003	0.1036	8.0000e-005	4.8900e-003	1.2000e-004	5.0100e-003	1.3200e-003	1.1000e-004	1.4200e-003	0.0000	7.1974	7.1974	5.5000e-004	0.0000	7.2112
Total	**0.0235**	**0.2250**	**0.1551**	**3.0000e-004**	**6.3200e-003**	**4.8000e-004**	**6.8100e-003**	**1.7400e-003**	**4.6000e-004**	**2.1900e-003**	**0.0000**	**28.4963**	**28.4963**	**4.5400e-003**	**0.0000**	**28.6099**

3.3 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5802					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0664	0.4461	0.4123	6.6000e-004		0.0335	0.0335		0.0335	0.0335	0.0000	56.7749	56.7749	5.4000e-003	0.0000	56.9098
Total	**0.6466**	**0.4461**	**0.4123**	**6.6000e-004**		**0.0335**	**0.0335**		**0.0335**	**0.0335**	**0.0000**	**56.7749**	**56.7749**	**5.4000e-003**	**0.0000**	**56.9098**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6400e-003	2.0800e-003	0.0274	2.0000e-005	1.2900e-003	3.0000e-005	1.3200e-003	3.5000e-004	3.0000e-005	3.8000e-004	0.0000	1.9022	1.9022	1.5000e-004	0.0000	1.9058
Total	**4.6400e-003**	**2.0800e-003**	**0.0274**	**2.0000e-005**	**1.2900e-003**	**3.0000e-005**	**1.3200e-003**	**3.5000e-004**	**3.0000e-005**	**3.8000e-004**	**0.0000**	**1.9022**	**1.9022**	**1.5000e-004**	**0.0000**	**1.9058**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5802					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0121	0.2353	0.4068	6.6000e-004		8.8000e-004	8.8000e-004		8.8000e-004	8.8000e-004	0.0000	56.7749	56.7749	5.4000e-003	0.0000	56.9098
Total	**0.5923**	**0.2353**	**0.4068**	**6.6000e-004**		**8.8000e-004**	**8.8000e-004**		**8.8000e-004**	**8.8000e-004**	**0.0000**	**56.7749**	**56.7749**	**5.4000e-003**	**0.0000**	**56.9098**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6400e-003	2.0800e-003	0.0274	2.0000e-005	1.2900e-003	3.0000e-005	1.3200e-003	3.5000e-004	3.0000e-005	3.8000e-004	0.0000	1.9022	1.9022	1.5000e-004	0.0000	1.9058
Total	**4.6400e-003**	**2.0800e-003**	**0.0274**	**2.0000e-005**	**1.2900e-003**	**3.0000e-005**	**1.3200e-003**	**3.5000e-004**	**3.0000e-005**	**3.8000e-004**	**0.0000**	**1.9022**	**1.9022**	**1.5000e-004**	**0.0000**	**1.9058**

3.3 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2875					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	0.0294	0.2023	0.2029	3.3000e-004		0.0142	0.0142		0.0142	0.0142	0.0000	28.1317	28.1317	2.3800e-003	0.0000	28.1911
Total	**0.3168**	**0.2023**	**0.2029**	**3.3000e-004**		**0.0142**	**0.0142**		**0.0142**	**0.0142**	**0.0000**	**28.1317**	**28.1317**	**2.3800e-003**	**0.0000**	**28.1911**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0800e-003	9.0000e-004	0.0121	1.0000e-005	6.4000e-004	1.0000e-005	6.6000e-004	1.7000e-004	1.0000e-005	1.9000e-004	0.0000	0.9163	0.9163	6.0000e-005	0.0000	0.9179
Total	**2.0800e-003**	**9.0000e-004**	**0.0121**	**1.0000e-005**	**6.4000e-004**	**1.0000e-005**	**6.6000e-004**	**1.7000e-004**	**1.0000e-005**	**1.9000e-004**	**0.0000**	**0.9163**	**0.9163**	**6.0000e-005**	**0.0000**	**0.9179**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2875					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.9900e-003	0.1166	0.2016	3.3000e-004		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004	0.0000	28.1316	28.1316	2.3800e-003	0.0000	28.1911
Total	**0.2935**	**0.1166**	**0.2016**	**3.3000e-004**		**4.4000e-004**	**4.4000e-004**		**4.4000e-004**	**4.4000e-004**	**0.0000**	**28.1316**	**28.1316**	**2.3800e-003**	**0.0000**	**28.1911**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0800e-003	9.0000e-004	0.0121	1.0000e-005	6.4000e-004	1.0000e-005	6.6000e-004	1.7000e-004	1.0000e-005	1.9000e-004	0.0000	0.9163	0.9163	6.0000e-005	0.0000	0.9179
Total	**2.0800e-003**	**9.0000e-004**	**0.0121**	**1.0000e-005**	**6.4000e-004**	**1.0000e-005**	**6.6000e-004**	**1.7000e-004**	**1.0000e-005**	**1.9000e-004**	**0.0000**	**0.9163**	**0.9163**	**6.0000e-005**	**0.0000**	**0.9179**

3.4 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0138	0.1453	0.1410	2.0000e-004		8.6300e-003	8.6300e-003		7.9400e-003	7.9400e-003	0.0000	18.2269	18.2269	5.7700e-003	0.0000	18.3711
Paving	1.3800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0151**	**0.1453**	**0.1410**	**2.0000e-004**		**8.6300e-003**	**8.6300e-003**		**7.9400e-003**	**7.9400e-003**	**0.0000**	**18.2269**	**18.2269**	**5.7700e-003**	**0.0000**	**18.3711**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	2.1000e-004	0.0100	1.2700e-003	1.0000e-005	4.0000e-005	1.0000e-005	5.0000e-005	1.0000e-005	1.0000e-005	2.0000e-005	0.0000	1.1557	1.1557	2.2000e-004	0.0000	1.1612
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	1.1000e-004	1.4100e-003	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.1075	0.1075	1.0000e-005	0.0000	0.1077
Total	**4.5000e-004**	**0.0101**	**2.6800e-003**	**1.0000e-005**	**1.2000e-004**	**1.0000e-005**	**1.3000e-004**	**3.0000e-005**	**1.0000e-005**	**4.0000e-005**	**0.0000**	**1.2632**	**1.2632**	**2.3000e-004**	**0.0000**	**1.2689**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.1700e-003	0.0940	0.1535	2.0000e-004		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003	0.0000	18.2269	18.2269	5.7700e-003	0.0000	18.3711
Paving	1.3800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.5500e-003**	**0.0940**	**0.1535**	**2.0000e-004**		**1.2100e-003**	**1.2100e-003**		**1.2100e-003**	**1.2100e-003**	**0.0000**	**18.2269**	**18.2269**	**5.7700e-003**	**0.0000**	**18.3711**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.1000e-004	0.0100	1.2700e-003	1.0000e-005	4.0000e-005	1.0000e-005	5.0000e-005	1.0000e-005	1.0000e-005	2.0000e-005	0.0000	1.1557	1.1557	2.2000e-004	0.0000	1.1612
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	1.1000e-004	1.4100e-003	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.1075	0.1075	1.0000e-005	0.0000	0.1077
Total	**4.5000e-004**	**0.0101**	**2.6800e-003**	**1.0000e-005**	**1.2000e-004**	**1.0000e-005**	**1.3000e-004**	**3.0000e-005**	**1.0000e-005**	**4.0000e-005**	**0.0000**	**1.2632**	**1.2632**	**2.3000e-004**	**0.0000**	**1.2689**

Emission Summary

Hayward-Ford Mixed Use Residential, Hayward, CA

DPM Construction Emissions and Modeling Emission Rates - Unmitigated

Construction Year	Activity	DPM (ton/year)	Area Source	DPM Emissions (lb/yr)	DPM Emissions (lb/hr)	DPM Emissions (g/s)	Modeled Area (m^2)	DPM Emission Rate ($g/s/m^2$)
2017	Site Prep	0.0031	1_DPM	6.2	0.00189	2.39E-04	38,576	6.18E-09
	Hotel	0.0005	2_DPM	1.1	0.00032	4.07E-05	9,640	4.22E-09
	Residential	0.0004	3_DPM	0.8	0.00024	3.07E-05	28,935	1.06E-09
2018	Hotel	0.0050	2_DPM	10.1	0.00306	3.86E-04	9,640	4.00E-08
	Residential	0.0027	3_DPM	5.4	0.00166	2.09E-04	28,935	7.21E-09
2019	Residential	0.0017	3_DPM	3.4	0.00102	1.29E-04	28,935	4.45E-09
Total		***0.0135***		***27***	***0.0082***	***0.0010***		

Construction Hours

hr/day =	9	(7am - 4pm)
days/yr =	365	
hours/year =	3285	

Hayward-Ford Mixed Use Residential, Hayward, CA

PM2.5 Fugitive Dust Construction Emissions for Modeling - Unmitigated

Construction Year	Activity	Area Source	PM2.5 Emissions (ton/year)	PM2.5 Emissions (lb/yr)	PM2.5 Emissions (lb/hr)	PM2.5 Emissions (g/s)	Modeled Area (m^2)	PM2.5 Emission Rate $g/s/m^2$
2017	Site Prep	1_FUG	0.0085	17.1	0.00520	6.55E-04	38,576	1.70E-08
	Hotel	2_FUG	0.0002	0.5	0.00014	1.76E-05	9,640	1.83E-09
	Residential	3_FUG	0.0004	0.7	0.00022	2.76E-05	28,935	9.54E-10
2018	Hotel	2_FUG	0.0712	142.4	0.04335	5.46E-03	9,640	5.67E-07
	Residential	3_FUG	0.0021	4.2	0.00127	1.60E-04	28,935	5.54E-09
2019	Residential	3_FUG	0.0002	0.4	0.00012	1.53E-05	28,935	5.30E-10
Total			***0.0826***	***165.2***	***0.0503***	***0.0063***		

Construction Hours

hr/day =	9	(7am - 4pm)
days/yr =	365	
hours/year =	3285	

Health Risk Calculations

Hayward-Ford Mixed Use Residential, Hayward,CA - Construction Impacts - Unmitigated Emissions
Maximum DPM Cancer Risk Calculations From Construction
Off-Site Residential Receptor Locations - 4.5 meters

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant/Child			Adult
Age -->	**3rd Trimester**	**0 - 2**	**2 - 16**	**16 - 30**
Parameter				
ASF =	10	10	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

			Infant/Child - Exposure Information				Adult - Exposure Information					
				DPM Conc (ug/m3)	Age	Infant/Child Cancer		Modeled DPM Conc (ug/m3)	Age	Adult Cancer		
Exposure Year	**Exposure Duration (years)**	**Age**	**Year**	**Annual**	**Sensitivity Factor**	**Risk (per million)**	**Year**	**Annual**	**Sensitivity Factor**	**Risk (per million)**	**Fugitive PM2.5**	**Total PM2.5**
0	0.25	-0.25 - 0*	2017	0.0066	10	0.09	2017		-	-	-	-
1	1	0 - 1	2017	0.0066	10	1.08	2017	0.0066	1	0.02	0.0160	0.023
2	1	1 - 2	2018	0.0075	10	1.23	2018	0.0075	1	0.02	0.0241	0.032
3	1	2 - 3	2019	0.0038	3	0.10	2019	0.0038	1	0.01	0.0005	0.004
4	1	3 - 4		0.0000	3	0.00		0.0000	1	0.00		
5	1	4 - 5		0.0000	3	0.00		0.0000	1	0.00		
6	1	5 - 6		0.0000	3	0.00		0.0000	1	0.00		
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00		
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00		
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00		
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00		
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00		
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00		
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00		
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00		
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00		
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00		
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00		
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00		
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00		
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00		
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00		
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00		
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00		
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00		
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00		
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00		
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00		
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00		
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00		
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00		
Total Increased Cancer Risk						**2.5**				**0.05**		

* Third trimester of pregnancy

Microsoft Silicon valley Campus Project, Mountain View, CA - Construction Impacts - Unmitigated Emissions
Maximum PM2.5 Concentration Calculations From Construction
Off-Site Residential Receptor Locations - 1.5 meters

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant/Child			Adult
Age -->	**3rd Trimester**	**0 - 2**	**2 - 16**	**16 - 30**
Parameter				
ASF =	10	10	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

			Infant/Child - Exposure Information				Adult - Exposure Information					
			DPM Conc (ug/m3)		Age	Infant/Child	Modeled DPM Conc (ug/m3)		Age	Adult		
Exposure Year	**Exposure Duration (years)**	**Age**	**Year**	**Annual**	**Sensitivity Factor**	**Cancer Risk (per million)**	**Year**	**Annual**	**Sensitivity Factor**	**Cancer Risk (per million)**	**Fugitive PM2.5**	**Total PM2.5**
0	0.25	-0.25 - 0*	2017	0.0020	10	0.03	2017		-	-	-	-
1	1	0 - 1	2017	0.0020	10	0.33	2017	0.0020	1	0.01	0.0043	0.006
2	1	1 - 2	2018	0.0058	10	0.95	2018	0.0058	1	0.02	0.0760	0.082
3	1	2 - 3	2019	0.0004	3	0.01	2019	0.0004	1	0.00	0.0001	0.000
4	1	3 - 4		0.0000	3	0.00		0.0000	1	0.00		
5	1	4 - 5		0.0000	3	0.00		0.0000	1	0.00		
6	1	5 - 6		0.0000	3	0.00		0.0000	1	0.00		
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00		
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00		
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00		
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00		
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00		
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00		
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00		
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00		
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00		
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00		
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00		
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00		
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00		
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00		
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00		
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00		
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00		
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00		
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00		
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00		
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00		
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00		
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00		
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00		
Total Increased Cancer Risk						**1.3**				**0.02**		

* Third trimester of pregnancy

Mission Crossings, Hayward CA - Construction Impacts - Unmitigated Emissions
Maximum DPM Cancer Risk Calculations From Construction
Kidango Berry Center Preschool- 1 meter - Child Exposures

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant/Child			Adult
Age -->	**3rd Trimester**	**0 - 2**	**2 - 16**	**16 - 30**
Parameter				
ASF =	10	10	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

		Student - Exposure Information					
Exposure Year	**Exposure Duration (years)**	**DPM Conc (ug/m3) Year**	**DPM Conc (ug/m3) Annual**	**Age* Sensitivity Factor**	**Student Cancer Risk (per million)**	**Fugitive PM2.5**	**Total PM2.5**
1	1	2017	0.0026	3	0.07	0.0116	0.014
2	1	2018	0.0032	3	0.08	0.0151	0.018
3	1	2019	0.0015	3	0.04	0.0003	0.002
Total Increased Cancer Risk					**0.2**		

* Students assumed to be less than 16 years of age (3-5 years)

Results Summary

Hayward -Ford Mixed use Residential, Hayward, CA - Project Construction Health Impact Summary

Maximum Impacts at Off-Site Residences

Construction Year	Unmitigated					
	Maximum Concentrations		Cancer Risk (per million)		Hazard Index	Maximum Annual PM2.5 Concentration
	Exhaust PM10/DPM ($\mu g/m^3$)	Fugitive PM2.5 ($\mu g/m^3$)	Child	Adult	(-)	($\mu g/m^3$)
2017	0.0066	0.0160	1.17	0.02	0.001	0.006
2018	0.0075	0.0241	1.23	0.02	0.001	0.082
2019	0.0038	0.0005	0.10	0.01	0.001	0.004
Total	-	-	**2.5**	**0.1**	-	-
Maximum Annual	0.0075	0.0241	-	-	**0.001**	**0.082**

Mission Crossing, Hayward, CA - Project Construction Health Impact Summary

Maximum Impacts at Kidango Berry Center Preschool

Construction Year	Unmitigated				
	Maximum Concentrations		Cancer Risk (per million)	Hazard Index	Maximum Annual PM2.5 Concentration
	Exhaust PM2.5/DPM ($\mu g/m^3$)	Fugitive PM2.5 ($\mu g/m^3$)	Child	(-)	($\mu g/m^3$)
2017	0.0026	0.0116	0.07	0.001	0.014
2018	0.0032	0.0151	0.08	0.001	0.002
2019	0.0015	0.0003	0.04	0.000	0.000
Total	-	-	**0.2**	-	-
Maximum Annual	0.0032	0.0151	-	**0.001**	**0.014**

CalEEMod Output-Criteria Pollutants

Mission Crossing, Site Preparation

Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	9.73	Acre	9.73	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2019
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	429.6	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Revised CO2 Emission Intensity

Land Use - Default land use for site preparation

Construction Phase - Revised CO2 Emission Intensity

Off-road Equipment - Applicant provided equipment information

Off-road Equipment - Applicant provided equipment information

Off-road Equipment - Applicant provided equipment information

Trips and VMT -

Demolition - 374700 sf of building demolished

Grading - 15000cy of material exported

Construction Off-road Equipment Mitigation - Best Management Practices
Tier 4 Mitigation

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	20.00	60.00
tblGrading	MaterialExported	0.00	15,000.00
tblLandUse	GreenSpaceSquareFeet	423,838.80	0.00
tblLandUse	LandUseSquareFeet	423,838.80	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	429.6
tblProjectCharacteristics	OperationalYear	2018	2019

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.2094	2.7733	1.4227	3.5500e-003	0.3010	0.1058	0.4067	0.0465	0.0977	0.1442	0.0000	333.5923	333.5923	0.0641	0.0000	335.1940
Maximum	**0.2094**	**2.7733**	**1.4227**	**3.5500e-003**	**0.3010**	**0.1058**	**0.4067**	**0.0465**	**0.0977**	**0.1442**	**0.0000**	**333.5923**	**333.5923**	**0.0641**	**0.0000**	**335.1940**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0567	1.2915	1.3641	3.5500e-003	0.1553	6.6500e-003	0.1620	0.0181	6.5100e-003	0.0247	0.0000	333.5920	333.5920	0.0641	0.0000	335.1938
Maximum	**0.0567**	**1.2915**	**1.3641**	**3.5500e-003**	**0.1553**	**6.6500e-003**	**0.1620**	**0.0181**	**6.5100e-003**	**0.0247**	**0.0000**	**333.5920**	**333.5920**	**0.0641**	**0.0000**	**335.1938**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**72.91**	**53.43**	**4.12**	**0.00**	**48.39**	**93.71**	**60.18**	**61.01**	**93.34**	**82.91**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/14/2017	7/11/2017	5	20	
2	Grading	Grading	7/12/2017	10/3/2017	5	60	
3	Trenching	Trenching	10/4/2017	11/28/2017	5	40	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 150

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
	Concrete/Industrial Saws	1	0.80	81	0.73
	Excavators	1	4.00	158	0.38
	Rubber Tired Dozers	1	4.00	247	0.40
	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	0	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Trenching	Excavators	2	8.00	158	0.38
Trenching	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Trenching	Trenchers	1	8.00	78	0.50

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	1,704.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	5	13.00	0.00	1,875.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1844	0.0000	0.1844	0.0279	0.0000	0.0279	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0410	0.4275	0.2301	3.9000e-004		0.0219	0.0219		0.0204	0.0204	0.0000	35.6005	35.6005	9.7300e-003	0.0000	35.8438
Total	**0.0410**	**0.4275**	**0.2301**	**3.9000e-004**	**0.1844**	**0.0219**	**0.2064**	**0.0279**	**0.0204**	**0.0484**	**0.0000**	**35.6005**	**35.6005**	**9.7300e-003**	**0.0000**	**35.8438**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.3400e-003	0.3006	0.0497	7.0000e-004	0.0144	1.5800e-003	0.0160	3.9700e-003	1.5100e-003	5.4800e-003	0.0000	67.1099	67.1099	3.7000e-003	0.0000	67.2023
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.1000e-004	5.7000e-004	5.6300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	1.1517	1.1517	4.0000e-005	0.0000	1.1527
Total	**0.0101**	**0.3012**	**0.0554**	**7.1000e-004**	**0.0156**	**1.5900e-003**	**0.0172**	**4.2900e-003**	**1.5200e-003**	**5.8000e-003**	**0.0000**	**68.2616**	**68.2616**	**3.7400e-003**	**0.0000**	**68.3550**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0830	0.0000	0.0830	6.2800e-003	0.0000	6.2800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.8400e-003	0.1356	0.2467	3.9000e-004		6.2000e-004	6.2000e-004		6.2000e-004	6.2000e-004	0.0000	35.6005	35.6005	9.7300e-003	0.0000	35.8438
Total	**5.8400e-003**	**0.1356**	**0.2467**	**3.9000e-004**	**0.0830**	**6.2000e-004**	**0.0836**	**6.2800e-003**	**6.2000e-004**	**6.9000e-003**	**0.0000**	**35.6005**	**35.6005**	**9.7300e-003**	**0.0000**	**35.8438**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.3400e-003	0.3006	0.0497	7.0000e-004	0.0144	1.5800e-003	0.0160	3.9700e-003	1.5100e-003	5.4800e-003	0.0000	67.1099	67.1099	3.7000e-003	0.0000	67.2023

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.1000e-004	5.7000e-004	5.6300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	1.1517	1.1517	4.0000e-005	0.0000	1.1527
Total	**0.0101**	**0.3012**	**0.0554**	**7.1000e-004**	**0.0156**	**1.5900e-003**	**0.0172**	**4.2900e-003**	**1.5200e-003**	**5.8000e-003**	**0.0000**	**68.2616**	**68.2616**	**3.7400e-003**	**0.0000**	**68.3550**

3.3 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0804	0.0000	0.0804	8.7200e-003	0.0000	8.7200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1143	1.4021	0.8245	1.2900e-003		0.0610	0.0610		0.0561	0.0561	0.0000	120.1601	120.1601	0.0368	0.0000	121.0805
Total	**0.1143**	**1.4021**	**0.8245**	**1.2900e-003**	**0.0804**	**0.0610**	**0.1414**	**8.7200e-003**	**0.0561**	**0.0648**	**0.0000**	**120.1601**	**120.1601**	**0.0368**	**0.0000**	**121.0805**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0103	0.3308	0.0547	7.7000e-004	0.0159	1.7400e-003	0.0176	4.3700e-003	1.6700e-003	6.0300e-003	0.0000	73.8445	73.8445	4.0700e-003	0.0000	73.9462
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8400e-003	1.4700e-003	0.0146	3.0000e-005	3.0800e-003	2.0000e-005	3.1100e-003	8.2000e-004	2.0000e-005	8.4000e-004	0.0000	2.9945	2.9945	1.0000e-004	0.0000	2.9971
Total	**0.0121**	**0.3323**	**0.0693**	**8.0000e-004**	**0.0190**	**1.7600e-003**	**0.0207**	**5.1900e-003**	**1.6900e-003**	**6.8700e-003**	**0.0000**	**76.8390**	**76.8390**	**4.1700e-003**	**0.0000**	**76.9433**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0362	0.0000	0.0362	1.9600e-003	0.0000	1.9600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0223	0.3741	0.7307	1.2900e-003		2.1200e-003	2.1200e-003		2.1200e-003	2.1200e-003	0.0000	120.1600	120.1600	0.0368	0.0000	121.0804
Total	**0.0223**	**0.3741**	**0.7307**	**1.2900e-003**	**0.0362**	**2.1200e-003**	**0.0383**	**1.9600e-003**	**2.1200e-003**	**4.0800e-003**	**0.0000**	**120.1600**	**120.1600**	**0.0368**	**0.0000**	**121.0804**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0103	0.3308	0.0547	7.7000e-004	0.0159	1.7400e-003	0.0176	4.3700e-003	1.6700e-003	6.0300e-003	0.0000	73.8445	73.8445	4.0700e-003	0.0000	73.9462
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8400e-003	1.4700e-003	0.0146	3.0000e-005	3.0800e-003	2.0000e-005	3.1100e-003	8.2000e-004	2.0000e-005	8.4000e-004	0.0000	2.9945	2.9945	1.0000e-004	0.0000	2.9971
Total	**0.0121**	**0.3323**	**0.0693**	**8.0000e-004**	**0.0190**	**1.7600e-003**	**0.0207**	**5.1900e-003**	**1.6900e-003**	**6.8700e-003**	**0.0000**	**76.8390**	**76.8390**	**4.1700e-003**	**0.0000**	**76.9433**

3.4 Trenching - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Off-Road	0.0309	0.3095	0.2359	3.4000e-004		0.0195	0.0195		0.0179	0.0179	0.0000	31.1954	31.1954	9.5600e-003	0.0000	31.4343
Total	**0.0309**	**0.3095**	**0.2359**	**3.4000e-004**		**0.0195**	**0.0195**		**0.0179**	**0.0179**	**0.0000**	**31.1954**	**31.1954**	**9.5600e-003**	**0.0000**	**31.4343**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.4000e-004	7.6000e-004	7.5000e-003	2.0000e-005	1.5800e-003	1.0000e-005	1.5900e-003	4.2000e-004	1.0000e-005	4.3000e-004	0.0000	1.5356	1.5356	5.0000e-005	0.0000	1.5370
Total	**9.4000e-004**	**7.6000e-004**	**7.5000e-003**	**2.0000e-005**	**1.5800e-003**	**1.0000e-005**	**1.5900e-003**	**4.2000e-004**	**1.0000e-005**	**4.3000e-004**	**0.0000**	**1.5356**	**1.5356**	**5.0000e-005**	**0.0000**	**1.5370**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.4500e-003	0.1476	0.2545	3.4000e-004		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	31.1953	31.1953	9.5600e-003	0.0000	31.4343
Total	**5.4500e-003**	**0.1476**	**0.2545**	**3.4000e-004**		**5.5000e-004**	**5.5000e-004**		**5.5000e-004**	**5.5000e-004**	**0.0000**	**31.1953**	**31.1953**	**9.5600e-003**	**0.0000**	**31.4343**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.4000e-004	7.6000e-004	7.5000e-003	2.0000e-005	1.5800e-003	1.0000e-005	1.5900e-003	4.2000e-004	1.0000e-005	4.3000e-004	0.0000	1.5356	1.5356	5.0000e-005	0.0000	1.5370
Total	**9.4000e-004**	**7.6000e-004**	**7.5000e-003**	**2.0000e-005**	**1.5800e-003**	**1.0000e-005**	**1.5900e-003**	**4.2000e-004**	**1.0000e-005**	**4.3000e-004**	**0.0000**	**1.5356**	**1.5356**	**5.0000e-005**	**0.0000**	**1.5370**

Mission Crossings, Hotel, Criteria Pollutants

Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	104.00	Space	0.94	41,600.00	0
Hotel	93.00	Room	1.16	135,036.00	0
Strip Mall	7.22	1000sqft	0.00	7,225.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2019
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	429.6	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Revised CO2 Emission Instensity

Land Use - From project description

Construction Phase - Applicant provided construction schedule

Off-road Equipment - Applicant provided equipment information

Off-road Equipment - Applicant provided equipment information

Off-road Equipment - Applicant provided equipment information

Off-road Equipment - Applicant provided information

Trips and VMT - 40,100 sf pf paving material

Demolition -

Vehicle Trips -

Construction Off-road Equipment Mitigation - Best Management Practices and Tier 4 Mitigation

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	10.00	220.00
tblConstructionPhase	NumDays	220.00	120.00
tblConstructionPhase	NumDays	10.00	60.00
tblLandUse	BuildingSpaceSquareFeet	7,220.00	7,225.00
tblLandUse	LandUseSquareFeet	7,220.00	7,225.00

tblLandUse	LotAcreage	3.10	1.16
tblLandUse	LotAcreage	0.17	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	UsageHours	8.00	3.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	6.00	3.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	429.6
tblProjectCharacteristics	OperationalYear	2018	2019
tblTripsAndVMT	HaulingTripNumber	0.00	400.00
tblTripsAndVMT	HaulingTripNumber	0.00	95.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0401	0.4000	0.2530	5.7000e-004	0.0169	0.0209	0.0377	4.5400e-003	0.0192	0.0238	0.0000	53.0038	53.0038	8.9200e-003	0.0000	53.2268

2018	0.8900	1.2494	1.0157	2.1600e-003	0.0536	0.0658	0.1194	0.0145	0.0620	0.0765	0.0000	196.4086	196.4086	0.0315	0.0000	197.1967
Maximum	**0.8900**	**1.2494**	**1.0157**	**2.1600e-003**	**0.0536**	**0.0658**	**0.1194**	**0.0145**	**0.0620**	**0.0765**	**0.0000**	**196.4086**	**196.4086**	**0.0315**	**0.0000**	**197.1967**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0153	0.2007	0.2500	5.7000e-004	0.0169	1.2500e-003	0.0181	4.5400e-003	1.2100e-003	5.7600e-003	0.0000	53.0038	53.0038	8.9200e-003	0.0000	53.2268
2018	0.8060	0.7299	1.0336	2.1600e-003	0.0536	6.5600e-003	0.0602	0.0145	6.4800e-003	0.0210	0.0000	196.4084	196.4084	0.0315	0.0000	197.1965
Maximum	**0.8060**	**0.7299**	**1.0336**	**2.1600e-003**	**0.0536**	**6.5600e-003**	**0.0602**	**0.0145**	**6.4800e-003**	**0.0210**	**0.0000**	**196.4084**	**196.4084**	**0.0315**	**0.0000**	**197.1965**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**11.70**	**43.57**	**-1.18**	**0.00**	**0.00**	**90.99**	**50.18**	**0.00**	**90.53**	**73.35**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**11-13-2017**	**2-12-2018**	0.8103	0.4262
2	**2-13-2018**	**5-12-2018**	0.9184	0.6053
3	**5-13-2018**	**8-12-2018**	0.4195	0.3407
4	**8-13-2018**	**9-30-2018**	0.1720	0.1537
		Highest	0.9184	0.6053

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	11/13/2017	4/27/2018	5	120	
2	Architectural Coating	Architectural Coating	2/5/2018	12/7/2018	5	220	
3	Paving	Paving	4/28/2018	7/20/2018	5	60	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.94

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 213,392; Non-Residential Outdoor: 71,131; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Cranes	2	3.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	5	3.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45
Architectural Coating	Aerial Lifts	1	6.00	63	0.31
Architectural Coating	Air Compressors	1	6.00	78	0.48
Architectural Coating	Plate Compactors	1	0.30	8	0.43
Architectural Coating	Pressure Washers	1	0.30	13	0.30
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	0	8.00	130	0.42
Paving	Paving Equipment	1	2.00	132	0.36
Paving	Rollers	1	2.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	4.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	10	77.00	30.00	400.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	4	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	4	10.00	0.00	95.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0302	0.2990	0.1811	2.6000e-004		0.0200	0.0200		0.0184	0.0184	0.0000	23.9409	23.9409	7.3400e-003	0.0000	24.1243
Total	**0.0302**	**0.2990**	**0.1811**	**2.6000e-004**		**0.0200**	**0.0200**		**0.0184**	**0.0184**	**0.0000**	**23.9409**	**23.9409**	**7.3400e-003**	**0.0000**	**24.1243**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Hauling	6.4000e-004	0.0206	3.4000e-003	5.0000e-005	2.7800e-003	1.1000e-004	2.8900e-003	7.1000e-004	1.0000e-004	8.2000e-004	0.0000	4.5948	4.5948	2.5000e-004	0.0000	4.6011
Vendor	2.9800e-003	0.0753	0.0179	1.5000e-004	3.4500e-003	6.4000e-004	4.0900e-003	1.0000e-003	6.1000e-004	1.6100e-003	0.0000	14.1218	14.1218	9.7000e-004	0.0000	14.1460
Worker	6.3600e-003	5.0900e-003	0.0505	1.1000e-004	0.0107	8.0000e-005	0.0107	2.8300e-003	7.0000e-005	2.9100e-003	0.0000	10.3464	10.3464	3.6000e-004	0.0000	10.3554
Total	**9.9800e-003**	**0.1010**	**0.0719**	**3.1000e-004**	**0.0169**	**8.3000e-004**	**0.0177**	**4.5400e-003**	**7.8000e-004**	**5.3400e-003**	**0.0000**	**29.0630**	**29.0630**	**1.5800e-003**	**0.0000**	**29.1026**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.3400e-003	0.0997	0.1782	2.6000e-004		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004	0.0000	23.9409	23.9409	7.3400e-003	0.0000	24.1242
Total	**5.3400e-003**	**0.0997**	**0.1782**	**2.6000e-004**		**4.2000e-004**	**4.2000e-004**		**4.2000e-004**	**4.2000e-004**	**0.0000**	**23.9409**	**23.9409**	**7.3400e-003**	**0.0000**	**24.1242**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.4000e-004	0.0206	3.4000e-003	5.0000e-005	2.7800e-003	1.1000e-004	2.8900e-003	7.1000e-004	1.0000e-004	8.2000e-004	0.0000	4.5948	4.5948	2.5000e-004	0.0000	4.6011
Vendor	2.9800e-003	0.0753	0.0179	1.5000e-004	3.4500e-003	6.4000e-004	4.0900e-003	1.0000e-003	6.1000e-004	1.6100e-003	0.0000	14.1218	14.1218	9.7000e-004	0.0000	14.1460
Worker	6.3600e-003	5.0900e-003	0.0505	1.1000e-004	0.0107	8.0000e-005	0.0107	2.8300e-003	7.0000e-005	2.9100e-003	0.0000	10.3464	10.3464	3.6000e-004	0.0000	10.3554

Total	**9.9800e-003**	**0.1010**	**0.0719**	**3.1000e-004**	**0.0169**	**8.3000e-004**	**0.0177**	**4.5400e-003**	**7.8000e-004**	**5.3400e-003**	**0.0000**	**29.0630**	**29.0630**	**1.5800e-003**	**0.0000**	**29.1026**

3.2 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0621	0.6277	0.4210	6.3000e-004		0.0403	0.0403		0.0371	0.0371	0.0000	57.1879	57.1879	0.0178	0.0000	57.6329
Total	**0.0621**	**0.6277**	**0.4210**	**6.3000e-004**		**0.0403**	**0.0403**		**0.0371**	**0.0371**	**0.0000**	**57.1879**	**57.1879**	**0.0178**	**0.0000**	**57.6329**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.3500e-003	0.0463	7.6700e-003	1.2000e-004	3.1400e-003	1.7000e-004	3.3100e-003	8.4000e-004	1.7000e-004	1.0100e-003	0.0000	11.0719	11.0719	5.8000e-004	0.0000	11.0865
Vendor	6.3400e-003	0.1719	0.0393	3.6000e-004	8.3700e-003	1.2300e-003	9.6000e-003	2.4200e-003	1.1700e-003	3.6000e-003	0.0000	34.1955	34.1955	2.1900e-003	0.0000	34.2503
Worker	0.0137	0.0108	0.1075	2.7000e-004	0.0259	1.9000e-004	0.0261	6.8800e-003	1.7000e-004	7.0600e-003	0.0000	24.4501	24.4501	7.7000e-004	0.0000	24.4693
Total	**0.0214**	**0.2289**	**0.1544**	**7.5000e-004**	**0.0374**	**1.5900e-003**	**0.0390**	**0.0101**	**1.5100e-003**	**0.0117**	**0.0000**	**69.7176**	**69.7176**	**3.5400e-003**	**0.0000**	**69.8060**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0130	0.2422	0.4327	6.3000e-004		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003	0.0000	57.1878	57.1878	0.0178	0.0000	57.6329
Total	**0.0130**	**0.2422**	**0.4327**	**6.3000e-004**		**1.0300e-003**	**1.0300e-003**		**1.0300e-003**	**1.0300e-003**	**0.0000**	**57.1878**	**57.1878**	**0.0178**	**0.0000**	**57.6329**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.3500e-003	0.0463	7.6700e-003	1.2000e-004	3.1400e-003	1.7000e-004	3.3100e-003	8.4000e-004	1.7000e-004	1.0100e-003	0.0000	11.0719	11.0719	5.8000e-004	0.0000	11.0865
Vendor	6.3400e-003	0.1719	0.0393	3.6000e-004	8.3700e-003	1.2300e-003	9.6000e-003	2.4200e-003	1.1700e-003	3.6000e-003	0.0000	34.1955	34.1955	2.1900e-003	0.0000	34.2503
Worker	0.0137	0.0108	0.1075	2.7000e-004	0.0259	1.9000e-004	0.0261	6.8800e-003	1.7000e-004	7.0600e-003	0.0000	24.4501	24.4501	7.7000e-004	0.0000	24.4693
Total	**0.0214**	**0.2289**	**0.1544**	**7.5000e-004**	**0.0374**	**1.5900e-003**	**0.0390**	**0.0101**	**1.5100e-003**	**0.0117**	**0.0000**	**69.7176**	**69.7176**	**3.5400e-003**	**0.0000**	**69.8060**

3.3 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Archit. Coating	0.7505					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0367	0.2817	0.2958	4.7000e-004		0.0183	0.0183		0.0182	0.0182	0.0000	41.0054	41.0054	6.6300e-003	0.0000	41.1712
Total	**0.7872**	**0.2817**	**0.2958**	**4.7000e-004**		**0.0183**	**0.0183**		**0.0182**	**0.0182**	**0.0000**	**41.0054**	**41.0054**	**6.6300e-003**	**0.0000**	**41.1712**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.9200e-003	5.4300e-003	0.0542	1.4000e-004	0.0131	1.0000e-004	0.0131	3.4700e-003	9.0000e-005	3.5600e-003	0.0000	12.3278	12.3278	3.9000e-004	0.0000	12.3375
Total	**6.9200e-003**	**5.4300e-003**	**0.0542**	**1.4000e-004**	**0.0131**	**1.0000e-004**	**0.0131**	**3.4700e-003**	**9.0000e-005**	**3.5600e-003**	**0.0000**	**12.3278**	**12.3278**	**3.9000e-004**	**0.0000**	**12.3375**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7505					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.4000e-003	0.1944	0.3067	4.7000e-004		3.6200e-003	3.6200e-003		3.6200e-003	3.6200e-003	0.0000	41.0053	41.0053	6.6300e-003	0.0000	41.1712
Total	**0.7599**	**0.1944**	**0.3067**	**4.7000e-004**		**3.6200e-003**	**3.6200e-003**		**3.6200e-003**	**3.6200e-003**	**0.0000**	**41.0053**	**41.0053**	**6.6300e-003**	**0.0000**	**41.1712**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.9200e-003	5.4300e-003	0.0542	1.4000e-004	0.0131	1.0000e-004	0.0131	3.4700e-003	9.0000e-005	3.5600e-003	0.0000	12.3278	12.3278	3.9000e-004	0.0000	12.3375
Total	**6.9200e-003**	**5.4300e-003**	**0.0542**	**1.4000e-004**	**0.0131**	**1.0000e-004**	**0.0131**	**3.4700e-003**	**9.0000e-005**	**3.5600e-003**	**0.0000**	**12.3278**	**12.3278**	**3.9000e-004**	**0.0000**	**12.3375**

3.4 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.4700e-003	0.0891	0.0778	1.2000e-004		5.4900e-003	5.4900e-003		5.0900e-003	5.0900e-003	0.0000	10.2162	10.2162	2.9000e-003	0.0000	10.2886
Paving	1.2300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0107**	**0.0891**	**0.0778**	**1.2000e-004**		**5.4900e-003**	**5.4900e-003**		**5.0900e-003**	**5.0900e-003**	**0.0000**	**10.2162**	**10.2162**	**2.9000e-003**	**0.0000**	**10.2886**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Hauling	4.5000e-004	0.0155	2.5700e-003	4.0000e-005	8.0000e-004	6.0000e-005	8.6000e-004	2.2000e-004	6.0000e-005	2.8000e-004	0.0000	3.7124	3.7124	2.0000e-004	0.0000	3.7172
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2600e-003	9.9000e-004	9.8500e-003	2.0000e-005	2.3700e-003	2.0000e-005	2.3900e-003	6.3000e-004	2.0000e-005	6.5000e-004	0.0000	2.2414	2.2414	7.0000e-005	0.0000	2.2432
Total	**1.7100e-003**	**0.0165**	**0.0124**	**6.0000e-005**	**3.1700e-003**	**8.0000e-005**	**3.2500e-003**	**8.5000e-004**	**8.0000e-005**	**9.3000e-004**	**0.0000**	**5.9538**	**5.9538**	**2.7000e-004**	**0.0000**	**5.9604**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.8600e-003	0.0424	0.0733	1.2000e-004		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	10.2162	10.2162	2.9000e-003	0.0000	10.2886
Paving	1.2300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.0900e-003**	**0.0424**	**0.0733**	**1.2000e-004**		**1.6000e-004**	**1.6000e-004**		**1.6000e-004**	**1.6000e-004**	**0.0000**	**10.2162**	**10.2162**	**2.9000e-003**	**0.0000**	**10.2886**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.5000e-004	0.0155	2.5700e-003	4.0000e-005	8.0000e-004	6.0000e-005	8.6000e-004	2.2000e-004	6.0000e-005	2.8000e-004	0.0000	3.7124	3.7124	2.0000e-004	0.0000	3.7172
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2600e-003	9.9000e-004	9.8500e-003	2.0000e-005	2.3700e-003	2.0000e-005	2.3900e-003	6.3000e-004	2.0000e-005	6.5000e-004	0.0000	2.2414	2.2414	7.0000e-005	0.0000	2.2432

Total	**1.7100e-003**	**0.0165**	**0.0124**	**6.0000e-005**	**3.1700e-003**	**8.0000e-005**	**3.2500e-003**	**8.5000e-004**	**8.0000e-005**	**9.3000e-004**	**0.0000**	**5.9538**	**5.9538**	**2.7000e-004**	**0.0000**	**5.9604**

Mission Crossings, Residential, Criteria Pollutants

Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	200.00	Space	0.00	80,000.00	0
Parking Lot	117.00	Space	1.05	46,800.00	0
Condo/Townhouse	141.00	Dwelling Unit	6.71	119,495.00	403

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2019
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	429.6	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Revised CO2 Emission Intensity

Land Use - From updated project description

Construction Phase - Applicant provided construction information

Off-road Equipment -

Off-road Equipment - Applicant provided construction info

Off-road Equipment - Applicant provided information

Off-road Equipment - Applicant provided construction schedule

Trips and VMT - 82,000 sf of pavement

On-road Fugitive Dust -

Construction Off-road Equipment Mitigation - Best Management Practices
Tier 4 Mitigation

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	20.00	332.00
tblConstructionPhase	NumDays	230.00	203.00
tblFleetMix	FleetMixLandUseSubType	Enclosed Parking Structure	Condo/Townhouse
tblFleetMix	FleetMixLandUseSubType	Parking Lot	Enclosed Parking Structure

tblFleetMix	FleetMixLandUseSubType	Condo/Townhouse	Parking Lot
tblLandUse	BuildingSpaceSquareFeet	141,000.00	119,495.00
tblLandUse	LandUseSquareFeet	141,000.00	119,495.00
tblLandUse	LotAcreage	1.80	0.00
tblLandUse	LotAcreage	8.81	6.71
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	429.6
tblProjectCharacteristics	OperationalYear	2018	2019
tblTripsAndVMT	HaulingTripNumber	0.00	190.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0356	0.2770	0.2558	5.8000e-004	0.0256	0.0146	0.0402	6.9000e-003	0.0135	0.0204	0.0000	53.5818	53.5818	6.5700e-003	0.0000	53.7461
2018	0.8086	1.6405	1.6659	3.6900e-003	0.1500	0.0915	0.2415	0.0404	0.0871	0.1274	0.0000	335.5335	335.5335	0.0369	0.0000	336.4548
2019	0.3400	0.3827	0.4045	7.6000e-004	0.0167	0.0230	0.0397	4.4500e-003	0.0223	0.0268	0.0000	67.5267	67.5267	8.9200e-003	0.0000	67.7497

Maximum	**0.8086**	**1.6405**	**1.6659**	**3.6900e-003**	**0.1500**	**0.0915**	**0.2415**	**0.0404**	**0.0871**	**0.1274**	**0.0000**	**335.5335**	**335.5335**	**0.0369**	**0.0000**	**336.4548**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0202	0.1746	0.2512	5.8000e-004	0.0256	1.2100e-003	0.0268	6.9000e-003	1.1600e-003	8.0600e-003	0.0000	53.5818	53.5818	6.5700e-003	0.0000	53.7461
2018	0.6945	1.0523	1.6545	3.6900e-003	0.1500	6.0700e-003	0.1561	0.0404	5.8700e-003	0.0462	0.0000	335.5334	335.5334	0.0369	0.0000	336.4546
2019	0.3071	0.2456	0.4157	7.6000e-004	0.0167	1.8600e-003	0.0185	4.4500e-003	1.8500e-003	6.3000e-003	0.0000	67.5266	67.5266	8.9200e-003	0.0000	67.7496
Maximum	**0.6945**	**1.0523**	**1.6545**	**3.6900e-003**	**0.1500**	**6.0700e-003**	**0.1561**	**0.0404**	**5.8700e-003**	**0.0462**	**0.0000**	**335.5334**	**335.5334**	**0.0369**	**0.0000**	**336.4546**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**13.72**	**35.98**	**0.20**	**0.00**	**0.00**	**92.92**	**37.33**	**0.00**	**92.78**	**65.30**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**11-13-2017**	**2-12-2018**	0.5602	0.3625
2	**2-13-2018**	**5-12-2018**	0.7886	0.5559
3	**5-13-2018**	**8-12-2018**	0.8483	0.5989
4	**8-13-2018**	**11-12-2018**	0.3876	0.2905
5	**11-13-2018**	**2-12-2019**	0.3252	0.2529
6	**2-13-2019**	**5-12-2019**	0.3069	0.2438
7	**5-13-2019**	**8-12-2019**	0.2536	0.1815
		Highest	0.8483	0.5989

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	11/13/2017	8/22/2018	5	203	
2	Architectural Coating	Architectural Coating	2/23/2018	6/3/2019	5	332	
3	Paving	Paving	6/3/2019	6/28/2019	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 1.05

Residential Indoor: 241,977; Residential Outdoor: 80,659; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Cranes	0	7.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Pumps	1	0.60	84	0.74
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45
Architectural Coating	Air Compressors	2	6.00	78	0.48
Architectural Coating	Plate Compactors	1	0.10	8	0.43
Architectural Coating	Pressure Washers	1	0.10	13	0.30
Paving	Pavers	2	4.00	130	0.42
Paving	Paving Equipment	0	8.00	132	0.36

Paving	Rollers	2	8.00	80	0.38
Paving	Skid Steer Loaders	2	8.00	65	0.37
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	5	155.00	36.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	4	31.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	190.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0193	0.1764	0.1325	1.7000e-004		0.0137	0.0137		0.0126	0.0126	0.0000	15.8085	15.8085	4.6800e-003	0.0000	15.9255
Total	**0.0193**	**0.1764**	**0.1325**	**1.7000e-004**		**0.0137**	**0.0137**		**0.0126**	**0.0126**	**0.0000**	**15.8085**	**15.8085**	**4.6800e-003**	**0.0000**	**15.9255**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.5700e-003	0.0904	0.0215	1.8000e-004	4.1400e-003	7.7000e-004	4.9100e-003	1.2000e-003	7.3000e-004	1.9300e-003	0.0000	16.9461	16.9461	1.1600e-003	0.0000	16.9752
Worker	0.0128	0.0103	0.1018	2.3000e-004	0.0215	1.6000e-004	0.0216	5.7100e-003	1.5000e-004	5.8600e-003	0.0000	20.8272	20.8272	7.3000e-004	0.0000	20.8453
Total	**0.0164**	**0.1006**	**0.1233**	**4.1000e-004**	**0.0256**	**9.3000e-004**	**0.0265**	**6.9100e-003**	**8.8000e-004**	**7.7900e-003**	**0.0000**	**37.7733**	**37.7733**	**1.8900e-003**	**0.0000**	**37.8206**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.8000e-003	0.0740	0.1280	1.7000e-004		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	15.8085	15.8085	4.6800e-003	0.0000	15.9255
Total	**3.8000e-003**	**0.0740**	**0.1280**	**1.7000e-004**		**2.8000e-004**	**2.8000e-004**		**2.8000e-004**	**2.8000e-004**	**0.0000**	**15.8085**	**15.8085**	**4.6800e-003**	**0.0000**	**15.9255**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.5700e-003	0.0904	0.0215	1.8000e-004	4.1400e-003	7.7000e-004	4.9100e-003	1.2000e-003	7.3000e-004	1.9300e-003	0.0000	16.9461	16.9461	1.1600e-003	0.0000	16.9752
Worker	0.0128	0.0103	0.1018	2.3000e-004	0.0215	1.6000e-004	0.0216	5.7100e-003	1.5000e-004	5.8600e-003	0.0000	20.8272	20.8272	7.3000e-004	0.0000	20.8453
Total	**0.0164**	**0.1006**	**0.1233**	**4.1000e-004**	**0.0256**	**9.3000e-004**	**0.0265**	**6.9100e-003**	**8.8000e-004**	**7.7900e-003**	**0.0000**	**37.7733**	**37.7733**	**1.8900e-003**	**0.0000**	**37.8206**

3.2 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0780	0.7326	0.6200	8.2000e-004		0.0542	0.0542		0.0500	0.0500	0.0000	74.6684	74.6684	0.0224	0.0000	75.2285
Total	**0.0780**	**0.7326**	**0.6200**	**8.2000e-004**		**0.0542**	**0.0542**		**0.0500**	**0.0500**	**0.0000**	**74.6684**	**74.6684**	**0.0224**	**0.0000**	**75.2285**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0150	0.4076	0.0931	8.5000e-004	0.0199	2.9100e-003	0.0228	5.7400e-003	2.7800e-003	8.5300e-003	0.0000	81.1038	81.1038	5.1900e-003	0.0000	81.2335
Worker	0.0546	0.0428	0.4275	1.0800e-003	0.1030	7.5000e-004	0.1037	0.0274	6.9000e-004	0.0281	0.0000	97.2774	97.2774	3.0500e-003	0.0000	97.3537

Total	**0.0696**	**0.4505**	**0.5206**	**1.9300e-003**	**0.1228**	**3.6600e-003**	**0.1265**	**0.0331**	**3.4700e-003**	**0.0366**	**0.0000**	**178.3812**	**178.3812**	**8.2400e-003**	**0.0000**	**178.5872**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0183	0.3552	0.6142	8.2000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003	0.0000	74.6683	74.6683	0.0224	0.0000	75.2284
Total	**0.0183**	**0.3552**	**0.6142**	**8.2000e-004**		**1.3300e-003**	**1.3300e-003**		**1.3300e-003**	**1.3300e-003**	**0.0000**	**74.6683**	**74.6683**	**0.0224**	**0.0000**	**75.2284**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0150	0.4076	0.0931	8.5000e-004	0.0199	2.9100e-003	0.0228	5.7400e-003	2.7800e-003	8.5300e-003	0.0000	81.1038	81.1038	5.1900e-003	0.0000	81.2335
Worker	0.0546	0.0428	0.4275	1.0800e-003	0.1030	7.5000e-004	0.1037	0.0274	6.9000e-004	0.0281	0.0000	97.2774	97.2774	3.0500e-003	0.0000	97.3537
Total	**0.0696**	**0.4505**	**0.5206**	**1.9300e-003**	**0.1228**	**3.6600e-003**	**0.1265**	**0.0331**	**3.4700e-003**	**0.0366**	**0.0000**	**178.3812**	**178.3812**	**8.2400e-003**	**0.0000**	**178.5872**

3.3 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5802					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0664	0.4461	0.4123	6.6000e-004		0.0335	0.0335		0.0335	0.0335	0.0000	56.7749	56.7749	5.4000e-003	0.0000	56.9098
Total	**0.6466**	**0.4461**	**0.4123**	**6.6000e-004**		**0.0335**	**0.0335**		**0.0335**	**0.0335**	**0.0000**	**56.7749**	**56.7749**	**5.4000e-003**	**0.0000**	**56.9098**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0144	0.0113	0.1130	2.8000e-004	0.0272	2.0000e-004	0.0274	7.2400e-003	1.8000e-004	7.4200e-003	0.0000	25.7090	25.7090	8.1000e-004	0.0000	25.7292
Total	**0.0144**	**0.0113**	**0.1130**	**2.8000e-004**	**0.0272**	**2.0000e-004**	**0.0274**	**7.2400e-003**	**1.8000e-004**	**7.4200e-003**	**0.0000**	**25.7090**	**25.7090**	**8.1000e-004**	**0.0000**	**25.7292**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Archit. Coating	0.5802					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0121	0.2353	0.4068	6.6000e-004		8.8000e-004	8.8000e-004		8.8000e-004	8.8000e-004	0.0000	56.7749	56.7749	5.4000e-003	0.0000	56.9098
Total	**0.5923**	**0.2353**	**0.4068**	**6.6000e-004**		**8.8000e-004**	**8.8000e-004**		**8.8000e-004**	**8.8000e-004**	**0.0000**	**56.7749**	**56.7749**	**5.4000e-003**	**0.0000**	**56.9098**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0144	0.0113	0.1130	2.8000e-004	0.0272	2.0000e-004	0.0274	7.2400e-003	1.8000e-004	7.4200e-003	0.0000	25.7090	25.7090	8.1000e-004	0.0000	25.7292
Total	**0.0144**	**0.0113**	**0.1130**	**2.8000e-004**	**0.0272**	**2.0000e-004**	**0.0274**	**7.2400e-003**	**1.8000e-004**	**7.4200e-003**	**0.0000**	**25.7090**	**25.7090**	**8.1000e-004**	**0.0000**	**25.7292**

3.3 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2875					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0294	0.2023	0.2029	3.3000e-004		0.0142	0.0142		0.0142	0.0142	0.0000	28.1317	28.1317	2.3800e-003	0.0000	28.1911
Total	**0.3168**	**0.2023**	**0.2029**	**3.3000e-004**		**0.0142**	**0.0142**		**0.0142**	**0.0142**	**0.0000**	**28.1317**	**28.1317**	**2.3800e-003**	**0.0000**	**28.1911**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.4500e-003	4.9200e-003	0.0497	1.4000e-004	0.0135	1.0000e-004	0.0136	3.5900e-003	9.0000e-005	3.6700e-003	0.0000	12.3662	12.3662	3.5000e-004	0.0000	12.3750
Total	**6.4500e-003**	**4.9200e-003**	**0.0497**	**1.4000e-004**	**0.0135**	**1.0000e-004**	**0.0136**	**3.5900e-003**	**9.0000e-005**	**3.6700e-003**	**0.0000**	**12.3662**	**12.3662**	**3.5000e-004**	**0.0000**	**12.3750**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2875					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.9900e-003	0.1166	0.2016	3.3000e-004		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004	0.0000	28.1316	28.1316	2.3800e-003	0.0000	28.1911
Total	**0.2935**	**0.1166**	**0.2016**	**3.3000e-004**		**4.4000e-004**	**4.4000e-004**		**4.4000e-004**	**4.4000e-004**	**0.0000**	**28.1316**	**28.1316**	**2.3800e-003**	**0.0000**	**28.1911**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.4500e-003	4.9200e-003	0.0497	1.4000e-004	0.0135	1.0000e-004	0.0136	3.5900e-003	9.0000e-005	3.6700e-003	0.0000	12.3662	12.3662	3.5000e-004	0.0000	12.3750
Total	**6.4500e-003**	**4.9200e-003**	**0.0497**	**1.4000e-004**	**0.0135**	**1.0000e-004**	**0.0136**	**3.5900e-003**	**9.0000e-005**	**3.6700e-003**	**0.0000**	**12.3662**	**12.3662**	**3.5000e-004**	**0.0000**	**12.3750**

3.4 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0138	0.1453	0.1410	2.0000e-004		8.6300e-003	8.6300e-003		7.9400e-003	7.9400e-003	0.0000	18.2269	18.2269	5.7700e-003	0.0000	18.3711
Paving	1.3800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0151**	**0.1453**	**0.1410**	**2.0000e-004**		**8.6300e-003**	**8.6300e-003**		**7.9400e-003**	**7.9400e-003**	**0.0000**	**18.2269**	**18.2269**	**5.7700e-003**	**0.0000**	**18.3711**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.7000e-004	0.0295	5.0400e-003	8.0000e-005	1.6100e-003	1.1000e-004	1.7200e-003	4.4000e-004	1.0000e-004	5.4000e-004	0.0000	7.3513	7.3513	3.8000e-004	0.0000	7.3608
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.6000e-004	5.8000e-004	5.8300e-003	2.0000e-005	1.5800e-003	1.0000e-005	1.5900e-003	4.2000e-004	1.0000e-005	4.3000e-004	0.0000	1.4506	1.4506	4.0000e-005	0.0000	1.4516

Total	**1.6300e-003**	**0.0301**	**0.0109**	**1.0000e-004**	**3.1900e-003**	**1.2000e-004**	**3.3100e-003**	**8.6000e-004**	**1.1000e-004**	**9.7000e-004**	**0.0000**	**8.8019**	**8.8019**	**4.2000e-004**	**0.0000**	**8.8125**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.1700e-003	0.0940	0.1535	2.0000e-004		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003	0.0000	18.2269	18.2269	5.7700e-003	0.0000	18.3711
Paving	1.3800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.5500e-003**	**0.0940**	**0.1535**	**2.0000e-004**		**1.2100e-003**	**1.2100e-003**		**1.2100e-003**	**1.2100e-003**	**0.0000**	**18.2269**	**18.2269**	**5.7700e-003**	**0.0000**	**18.3711**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.7000e-004	0.0295	5.0400e-003	8.0000e-005	1.6100e-003	1.1000e-004	1.7200e-003	4.4000e-004	1.0000e-004	5.4000e-004	0.0000	7.3513	7.3513	3.8000e-004	0.0000	7.3608
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.6000e-004	5.8000e-004	5.8300e-003	2.0000e-005	1.5800e-003	1.0000e-005	1.5900e-003	4.2000e-004	1.0000e-005	4.3000e-004	0.0000	1.4506	1.4506	4.0000e-005	0.0000	1.4516
Total	**1.6300e-003**	**0.0301**	**0.0109**	**1.0000e-004**	**3.1900e-003**	**1.2000e-004**	**3.3100e-003**	**8.6000e-004**	**1.1000e-004**	**9.7000e-004**	**0.0000**	**8.8019**	**8.8019**	**4.2000e-004**	**0.0000**	**8.8125**

CalEEMod Output: Operational Emissions

MIssion Crossings, Hotel, Operational

Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	104.00	Space	0.94	41,600.00	0
Fast Food Restaurant with Drive Thru	1.50	1000sqft	0.00	1,500.00	0
Hotel	93.00	Room	1.16	135,036.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	290	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - 2020 PG&E CO2 intensity factor

Land Use - From the trip generation table and project descritpion

Construction Phase - No construction emissions modeled

Off-road Equipment - No constrcution emissions modeled

Trips and VMT - No construction emissions modeled

Grading -

Vehicle Trips - Passerby trips already accounted for

Woodstoves -

Energy Use - Default values used

Stationary Sources - Emergency Generators and Fire Pumps - 2-150 HP diesel generators used

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	3.00	0.00
tblLandUse	LotAcreage	0.03	0.00
tblLandUse	LotAcreage	3.10	1.16
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblProjectCharacteristics	OperationalYear	2018	2020
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	36.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblVehicleTrips	DV_TP	21.00	0.00
tblVehicleTrips	PB_TP	50.00	61.00
tblVehicleTrips	PR_TP	29.00	39.00
tblVehicleTrips	ST_TR	722.03	628.70
tblVehicleTrips	SU_TR	542.72	472.60
tblVehicleTrips	WD_TR	496.12	432.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Area	0.6082	2.0000e-005	1.8400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.5500e-003	3.5500e-003	1.0000e-005	0.0000	3.7800e-003
Energy	0.0281	0.2550	0.2142	1.5300e-003		0.0194	0.0194		0.0194	0.0194	0.0000	436.5374	436.5374	0.0212	8.3800e-003	439.5643
Mobile	0.3935	2.3658	3.7066	0.0114	0.7977	0.0138	0.8114	0.2144	0.0130	0.2274	0.0000	1,048.8479	1,048.8479	0.0565	0.0000	1,050.2595
Stationary	8.8600e-003	0.0248	0.0322	4.0000e-005		1.3000e-003	1.3000e-003		1.3000e-003	1.3000e-003	0.0000	4.1126	4.1126	5.8000e-004	0.0000	4.1270
Waste						0.0000	0.0000		0.0000	0.0000	13.8440	0.0000	13.8440	0.8182	0.0000	34.2979
Water						0.0000	0.0000		0.0000	0.0000	0.8929	2.1373	3.0302	0.0919	2.2100e-003	5.9867
Total	**1.0386**	**2.6456**	**3.9549**	**0.0130**	**0.7977**	**0.0345**	**0.8321**	**0.2144**	**0.0337**	**0.2481**	**14.7369**	**1,491.6387**	**1,506.3756**	**0.9883**	**0.0106**	**1,534.2391**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3935	2.3658	3.7066	0.0114	0.7977	0.0138	0.8114	0.2144	0.0130	0.2274	0.0000	1,048.8479	1,048.8479	0.0565	0.0000	1,050.2595
Unmitigated	0.3935	2.3658	3.7066	0.0114	0.7977	0.0138	0.8114	0.2144	0.0130	0.2274	0.0000	1,048.8479	1,048.8479	0.0565	0.0000	1,050.2595

4.2 Trip Summary Information

	Average Daily Trip Rate	Unmitigated	Mitigated

Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant with Drive Thru	648.00	943.05	708.90	744,543	744,543
Hotel	759.81	761.67	553.35	1,388,054	1,388,054
Parking Lot	0.00	0.00	0.00		
Total	1,407.81	1,704.72	1,262.25	2,132,597	2,132,597

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Fast Food Restaurant with Drive Thru	9.50	7.30	7.30	2.20	78.80	19.00	39	0	61
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.558186	0.040947	0.190770	0.110456	0.017401	0.005228	0.022658	0.042795	0.002118	0.002805	0.005569	0.000308	0.000759
Fast Food Restaurant with Drive Thru	0.558186	0.040947	0.190770	0.110456	0.017401	0.005228	0.022658	0.042795	0.002118	0.002805	0.005569	0.000308	0.000759
Hotel	0.558186	0.040947	0.190770	0.110456	0.017401	0.005228	0.022658	0.042795	0.002118	0.002805	0.005569	0.000308	0.000759

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	158.9069	158.9069	0.0159	3.2900e-003	160.2839

Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	158.9069	158.9069	0.0159	3.2900e-003	160.2839	
NaturalGas Mitigated	0.0281	0.2550	0.2142	1.5300e-003		0.0194	0.0194		0.0194	0.0194	0.0000	277.6305	277.6305	5.3200e-003	5.0900e-003	279.2804	
NaturalGas Unmitigated	0.0281	0.2550	0.2142	1.5300e-003		0.0194	0.0194		0.0194	0.0194	0.0000	277.6305	277.6305	5.3200e-003	5.0900e-003	279.2804	

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Fast Food Restaurant with Drive Thru	252180	1.3600e-003	0.0124	0.0104	7.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	13.4573	13.4573	2.6000e-004	2.5000e-004	13.5373
Hotel	4.95042e+006	0.0267	0.2427	0.2038	1.4600e-003		0.0184	0.0184		0.0184	0.0184	0.0000	264.1733	264.1733	5.0600e-003	4.8400e-003	265.7431
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0281**	**0.2550**	**0.2142**	**1.5300e-003**		**0.0194**	**0.0194**		**0.0194**	**0.0194**	**0.0000**	**277.6305**	**277.6305**	**5.3200e-003**	**5.0900e-003**	**279.2804**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Fast Food Restaurant with Drive Thru	252180	1.3600e-003	0.0124	0.0104	7.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	13.4573	13.4573	2.6000e-004	2.5000e-004	13.5373
Hotel	4.95042e+006	0.0267	0.2427	0.2038	1.4600e-003		0.0184	0.0184		0.0184	0.0184	0.0000	264.1733	264.1733	5.0600e-003	4.8400e-003	265.7431
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0281**	**0.2550**	**0.2142**	**1.5300e-003**		**0.0194**	**0.0194**		**0.0194**	**0.0194**	**0.0000**	**277.6305**	**277.6305**	**5.3200e-003**	**5.0900e-003**	**279.2804**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Fast Food Restaurant with Drive Thru	43875	5.7714	5.8000e-004	1.2000e-004	5.8214
Hotel	1.12755e+006	148.3200	0.0148	3.0700e-003	149.6053
Parking Lot	36608	4.8155	4.8000e-004	1.0000e-004	4.8572
Total		**158.9069**	**0.0159**	**3.2900e-003**	**160.2839**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Fast Food Restaurant with Drive Thru	43875	5.7714	5.8000e-004	1.2000e-004	5.8214
Hotel	1.12755e+006	148.3200	0.0148	3.0700e-003	149.6053
Parking Lot	36608	4.8155	4.8000e-004	1.0000e-004	4.8572
Total		**158.9069**	**0.0159**	**3.2900e-003**	**160.2839**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.6082	2.0000e-005	1.8400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.5500e-003	3.5500e-003	1.0000e-005	0.0000	3.7800e-003
Unmitigated	0.6082	2.0000e-005	1.8400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.5500e-003	3.5500e-003	1.0000e-005	0.0000	3.7800e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0721					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5359					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.7000e-004	2.0000e-005	1.8400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.5500e-003	3.5500e-003	1.0000e-005	0.0000	3.7800e-003
Total	**0.6082**	**2.0000e-005**	**1.8400e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**3.5500e-003**	**3.5500e-003**	**1.0000e-005**	**0.0000**	**3.7800e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0721					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5359					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.7000e-004	2.0000e-005	1.8400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.5500e-003	3.5500e-003	1.0000e-005	0.0000	3.7800e-003
Total	**0.6082**	**2.0000e-005**	**1.8400e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**3.5500e-003**	**3.5500e-003**	**1.0000e-005**	**0.0000**	**3.7800e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	3.0302	0.0919	2.2100e-003	5.9867
Unmitigated	3.0302	0.0919	2.2100e-003	5.9867

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Fast Food Restaurant with Drive Thru	0.455301 / 0.0290617	0.4819	0.0149	3.6000e-004	0.9601

Hotel	2.35911 / 0.262123	2.5483	0.0771	1.8500e-003	5.0266
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**3.0302**	**0.0919**	**2.2100e-003**	**5.9867**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Fast Food Restaurant with	0.455301 / 0.0290617	0.4819	0.0149	3.6000e-004	0.9601
Hotel	2.35911 / 0.262123	2.5483	0.0771	1.8500e-003	5.0266
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**3.0302**	**0.0919**	**2.2100e-003**	**5.9867**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	13.8440	0.8182	0.0000	34.2979

Unmitigated	13.8440	0.8182	0.0000	34.2979

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant with Drive Thru	17.28	3.5077	0.2073	0.0000	8.6901
Hotel	50.92	10.3363	0.6109	0.0000	25.6078
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**13.8440**	**0.8182**	**0.0000**	**34.2979**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant with Drive Thru	17.28	3.5077	0.2073	0.0000	8.6901
Hotel	50.92	10.3363	0.6109	0.0000	25.6078
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**13.8440**	**0.8182**	**0.0000**	**34.2979**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	2	0	36	150	0.73	Diesel

Boilers

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

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (100 - 175 HP)	8.8600e-003	0.0248	0.0322	4.0000e-005		1.3000e-003	1.3000e-003		1.3000e-003	1.3000e-003	0.0000	4.1126	4.1126	5.8000e-004	0.0000	4.1270
Total	**8.8600e-003**	**0.0248**	**0.0322**	**4.0000e-005**		**1.3000e-003**	**1.3000e-003**		**1.3000e-003**	**1.3000e-003**	**0.0000**	**4.1126**	**4.1126**	**5.8000e-004**	**0.0000**	**4.1270**

11.0 Vegetation

Mission Crossings, Residential, operational

Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	141.00	Dwelling Unit	6.71	119,495.00	403
Enclosed Parking Structure	200.00	Space	0.00	80,000.00	0
Parking Lot	117.00	Space	1.05	46,800.00	0
Strip Mall	1.50	1000sqft	0.00	1,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	290	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - 2020 PG&E CO2 intensity factor

Land Use - From the project description and the trip generation table

Construction Phase - No construction emissions modeled

Off-road Equipment - No construction emissions modeled

Trips and VMT - No construction emissions modeled

Vehicle Trips - Passerby trips accounted for

Woodstoves - no wood burning

Energy Use - default values used

Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	0.00
tblConstructionPhase	PhaseEndDate	12/29/2017	12/15/2017
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	21.15	141.00
tblFireplaces	NumberNoFireplace	5.64	0.00
tblFireplaces	NumberWood	23.97	0.00
tblLandUse	BuildingSpaceSquareFeet	141,000.00	119,495.00
tblLandUse	LandUseSquareFeet	141,000.00	119,495.00
tblLandUse	LotAcreage	8.81	6.71
tblLandUse	LotAcreage	1.80	0.00
tblLandUse	LotAcreage	0.03	0.00
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblProjectCharacteristics	OperationalYear	2018	2020
tblTripsAndVMT	WorkerTripNumber	18.00	0.00
tblVehicleTrips	DV_TP	11.00	12.00
tblVehicleTrips	DV_TP	40.00	47.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	86.00	88.00
tblVehicleTrips	PR_TP	45.00	53.00
tblVehicleTrips	ST_TR	5.67	5.49
tblVehicleTrips	ST_TR	42.04	40.75
tblVehicleTrips	SU_TR	4.84	4.69
tblVehicleTrips	SU_TR	20.43	19.80
tblVehicleTrips	WD_TR	5.81	5.63

tblVehicleTrips	WD_TR	44.32	42.96
tblWoodstoves	NumberCatalytic	2.82	0.00
tblWoodstoves	NumberNoncatalytic	2.82	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

2.0 Emissions Summary

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.6023	0.0274	1.0598	1.5000e-004		7.0200e-003	7.0200e-003		7.0200e-003	7.0200e-003	0.0000	19.3182	19.3182	2.0200e-003	3.2000e-004	19.4649
Energy	0.0214	0.1827	0.0779	1.1700e-003		0.0148	0.0148		0.0148	0.0148	0.0000	387.0712	387.0712	0.0216	7.5100e-003	389.8494
Mobile	0.2877	1.8249	3.1689	0.0100	0.7235	0.0140	0.7375	0.1945	0.0132	0.2077	0.0000	923.3531	923.3531	0.0445	0.0000	924.4665
Waste						0.0000	0.0000		0.0000	0.0000	13.4867	0.0000	13.4867	0.7970	0.0000	33.4128
Water						0.0000	0.0000		0.0000	0.0000	2.9498	9.3157	12.2655	0.3039	7.3500e-003	22.0523
Total	**0.9114**	**2.0350**	**4.3066**	**0.0114**	**0.7235**	**0.0358**	**0.7592**	**0.1945**	**0.0350**	**0.2295**	**16.4365**	**1,339.0583**	**1,355.4948**	**1.1691**	**0.0152**	**1,389.2459**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Area	0.6023	0.0274	1.0598	1.5000e-004		7.0200e-003	7.0200e-003		7.0200e-003	7.0200e-003	0.0000	19.3182	19.3182	2.0200e-003	3.2000e-004	19.4649
Energy	0.0214	0.1827	0.0779	1.1700e-003		0.0148	0.0148		0.0148	0.0148	0.0000	387.0712	387.0712	0.0216	7.5100e-003	389.8494
Mobile	0.2877	1.8249	3.1689	0.0100	0.7235	0.0140	0.7375	0.1945	0.0132	0.2077	0.0000	923.3531	923.3531	0.0445	0.0000	924.4665
Waste						0.0000	0.0000		0.0000	0.0000	13.4867	0.0000	13.4867	0.7970	0.0000	33.4128
Water						0.0000	0.0000		0.0000	0.0000	2.9498	9.3157	12.2655	0.3039	7.3500e-003	22.0523
Total	**0.9114**	**2.0350**	**4.3066**	**0.0114**	**0.7235**	**0.0358**	**0.7592**	**0.1945**	**0.0350**	**0.2295**	**16.4365**	**1,339.0583**	**1,355.4948**	**1.1691**	**0.0152**	**1,389.2459**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2877	1.8249	3.1689	0.0100	0.7235	0.0140	0.7375	0.1945	0.0132	0.2077	0.0000	923.3531	923.3531	0.0445	0.0000	924.4665
Unmitigated	0.2877	1.8249	3.1689	0.0100	0.7235	0.0140	0.7375	0.1945	0.0132	0.2077	0.0000	923.3531	923.3531	0.0445	0.0000	924.4665

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	793.83	774.09	661.29	1,827,535	1,827,535
Enclosed Parking Structure	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Strip Mall	64.44	61.13	29.70	106,597	106,597
Total	858.27	835.22	690.99	1,934,131	1,934,131

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	10.80	4.80	5.70	31.00	15.00	54.00	88	12	0
Enclosed Parking Structure	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	53	47	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.558186	0.040947	0.190770	0.110456	0.017401	0.005228	0.022658	0.042795	0.002118	0.002805	0.005569	0.000308	0.000759
Enclosed Parking Structure	0.558186	0.040947	0.190770	0.110456	0.017401	0.005228	0.022658	0.042795	0.002118	0.002805	0.005569	0.000308	0.000759
Parking Lot	0.558186	0.040947	0.190770	0.110456	0.017401	0.005228	0.022658	0.042795	0.002118	0.002805	0.005569	0.000308	0.000759
Strip Mall	0.558186	0.040947	0.190770	0.110456	0.017401	0.005228	0.022658	0.042795	0.002118	0.002805	0.005569	0.000308	0.000759

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	175.5445	175.5445	0.0176	3.6300e-003	177.0656
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	175.5445	175.5445	0.0176	3.6300e-003	177.0656
NaturalGas Mitigated	0.0214	0.1827	0.0779	1.1700e-003		0.0148	0.0148		0.0148	0.0148	0.0000	211.5268	211.5268	4.0500e-003	3.8800e-003	212.7838
NaturalGas Unmitigated	0.0214	0.1827	0.0779	1.1700e-003		0.0148	0.0148		0.0148	0.0148	0.0000	211.5268	211.5268	4.0500e-003	3.8800e-003	212.7838

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Condo/Townhouse	3.95693e+006	0.0213	0.1823	0.0776	1.1600e-003		0.0147	0.0147		0.0147	0.0147	0.0000	211.1570	211.1570	4.0500e-003	3.8700e-003	212.4118
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	6930	4.0000e-005	3.4000e-004	2.9000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.3698	0.3698	1.0000e-005	1.0000e-005	0.3720
Total		**0.0214**	**0.1827**	**0.0779**	**1.1600e-003**		**0.0148**	**0.0148**		**0.0148**	**0.0148**	**0.0000**	**211.5268**	**211.5268**	**4.0600e-003**	**3.8800e-003**	**212.7838**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Condo/Townhouse	3.95693e+006	0.0213	0.1823	0.0776	1.1600e-003		0.0147	0.0147		0.0147	0.0147	0.0000	211.1570	211.1570	4.0500e-003	3.8700e-003	212.4118

Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	6930	4.0000e-005	3.4000e-004	2.9000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.3698	0.3698	1.0000e-005	1.0000e-005	0.3720
Total		**0.0214**	**0.1827**	**0.0779**	**1.1600e-003**		**0.0148**	**0.0148**		**0.0148**	**0.0148**	**0.0000**	**211.5268**	**211.5268**	**4.0600e-003**	**3.8800e-003**	**212.7838**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	753266	99.0859	9.9100e-003	2.0500e-003	99.9446
Enclosed Parking Structure	524000	68.9279	6.8900e-003	1.4300e-003	69.5252
Parking Lot	41184	5.4174	5.4000e-004	1.1000e-004	5.4644
Strip Mall	16065	2.1132	2.1000e-004	4.0000e-005	2.1315
Total		**175.5445**	**0.0176**	**3.6300e-003**	**177.0656**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	753266	99.0859	9.9100e-003	2.0500e-003	99.9446
Enclosed Parking Structure	524000	68.9279	6.8900e-003	1.4300e-003	69.5252

Parking Lot	41184	5.4174	5.4000e-004	1.1000e-004	5.4644
Strip Mall	16065	2.1132	2.1000e-004	4.0000e-005	2.1315
Total		**175.5445**	**0.0176**	**3.6300e-003**	**177.0656**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.6023	0.0274	1.0598	1.5000e-004		7.0200e-003	7.0200e-003		7.0200e-003	7.0200e-003	0.0000	19.3182	19.3182	2.0200e-003	3.2000e-004	19.4649
Unmitigated	0.6023	0.0274	1.0598	1.5000e-004		7.0200e-003	7.0200e-003		7.0200e-003	7.0200e-003	0.0000	19.3182	19.3182	2.0200e-003	3.2000e-004	19.4649

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0875					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4807					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Hearth	1.7800e-003	0.0152	6.4700e-003	1.0000e-004		1.2300e-003	1.2300e-003		1.2300e-003	1.2300e-003	0.0000	17.6023	17.6023	3.4000e-004	3.2000e-004	17.7069
Landscaping	0.0323	0.0122	1.0534	6.0000e-005		5.7900e-003	5.7900e-003		5.7900e-003	5.7900e-003	0.0000	1.7159	1.7159	1.6800e-003	0.0000	1.7579
Total	**0.6023**	**0.0274**	**1.0598**	**1.6000e-004**		**7.0200e-003**	**7.0200e-003**		**7.0200e-003**	**7.0200e-003**	**0.0000**	**19.3182**	**19.3182**	**2.0200e-003**	**3.2000e-004**	**19.4649**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0875					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4807					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.7800e-003	0.0152	6.4700e-003	1.0000e-004		1.2300e-003	1.2300e-003		1.2300e-003	1.2300e-003	0.0000	17.6023	17.6023	3.4000e-004	3.2000e-004	17.7069
Landscaping	0.0323	0.0122	1.0534	6.0000e-005		5.7900e-003	5.7900e-003		5.7900e-003	5.7900e-003	0.0000	1.7159	1.7159	1.6800e-003	0.0000	1.7579
Total	**0.6023**	**0.0274**	**1.0598**	**1.6000e-004**		**7.0200e-003**	**7.0200e-003**		**7.0200e-003**	**7.0200e-003**	**0.0000**	**19.3182**	**19.3182**	**2.0200e-003**	**3.2000e-004**	**19.4649**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	12.2655	0.3039	7.3500e-003	22.0523

Unmitigated	12.2655	0.3039	7.3500e-003	22.0523

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	9.18672 / 5.79163	12.1198	0.3003	7.2600e-003	21.7897
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.111109 / 0.0680989	0.1457	3.6300e-003	9.0000e-005	0.2626
Total		**12.2655**	**0.3039**	**7.3500e-003**	**22.0523**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	9.18672 / 5.79163	12.1198	0.3003	7.2600e-003	21.7897
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.111109 / 0.0680989	0.1457	3.6300e-003	9.0000e-005	0.2626

Total		**12.2655**	**0.3039**	**7.3500e-003**	**22.0523**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	13.4867	0.7970	0.0000	33.4128
Unmitigated	13.4867	0.7970	0.0000	33.4128

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	64.86	13.1660	0.7781	0.0000	32.6182
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	1.58	0.3207	0.0190	0.0000	0.7946

Total		**13.4867**	**0.7970**	**0.0000**	**33.4128**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	64.86	13.1660	0.7781	0.0000	32.6182
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	1.58	0.3207	0.0190	0.0000	0.7946
Total		**13.4867**	**0.7970**	**0.0000**	**33.4128**

Attachment 3: SR-238 Risk Calculations

Mission Crossings, Hayward, CA - SR-238 (Mission Boulevard) DPM, PM2.5 & TOG TACs
AERMOD Risk Modeling Parameters and Maximum Concentrations
On-Site Residential Receptors (1.5 meter receptor heights)

Receptor Information

Number of Receptors	299
Receptor Height =	1.5 meters
Receptor distances =	variable

Meteorological Conditions

union City Met Data	1990-1994
Land Use Classification	urban
Wind speed =	variable
Wind direction =	variable

MEI Maximum Concentrations

Meteorological Data Year	Concentration (µg/m^3)		
	DPM	Exhaust TOG	Evaporative TOG
1990	0.00130	0.04708	0.10924
1991	0.00137	0.04968	0.11527
1992	0.00144	0.05322	0.12349
1993	0.00155	0.05686	0.13193
1994	0.00151	0.05540	0.12854
Maximum	**0.0016**	**0.0569**	**0.1319**
Average	**0.0014**	**0.0524**	**0.1217**

Meteorological Data Year	PM2.5 Concentrations (µg/m^3)		
	Total PM2.5	Road Dust PM2.5	Vehicle PM2.5
1990	0.0630	0.0262	0.03678
1991	0.0665	0.0277	0.03881
1992	0.0713	0.0298	0.04158
1993	0.0762	0.0317	0.04442
1994	0.0742	0.0310	0.04328
Maximum	**0.0762**	**0.0317**	**0.0444**
Average	**0.0703**	**0.0293**	**0.0410**

Mission Crossings, Hayward, CA - SR-238 (Mission Boulevard) Maximum Cancer Risks
On-Site Residential Receptors (1.5 meter receptor heights)
30-Year Residential Exposure

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

TAC	CPF
DPM	1.10E+00
Vehicle TOG Exhaust	6.28E-03
Vehicle TOG Evaporative	3.70E-04

	Infant/Child			Adult
Age -->	3rd Trimester	0 - <2	2 - <16	16 - 30
Parameter				
ASF	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
ED =	0.25	2	14	14
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates

Road Traffic Cancer Risk by Year - Maximum Impact Receptor Location

				Maximum - Exposure Information				Cancer Risk (per million)			
					Annual DPM Conc (ug/m3)						
Exposure Year	Year	Exposure Duration (years)	Age	Age Sensitivity Factor	DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG	Total
0	2020	0.25	-0.25 - 0*	10	0.0014	0.0524	0.1217	0.020	0.004	0.001	0.02
1	2020	1	1	10	0.0014	0.0524	0.1217	0.24	0.049	0.007	0.29
2	2021	1	2	10	0.0014	0.0524	0.1217	0.24	0.049	0.007	0.29
3	2022	1	3	3	0.0014	0.0524	0.1217	0.04	0.008	0.001	0.05
4	2023	1	4	3	0.0014	0.0524	0.1217	0.04	0.008	0.001	0.05
5	2024	1	5	3	0.0014	0.0524	0.1217	0.04	0.008	0.001	0.05
6	2025	1	6	3	0.0014	0.0524	0.1217	0.04	0.008	0.001	0.05
7	2026	1	7	3	0.0014	0.0524	0.1217	0.04	0.008	0.001	0.05
8	2027	1	8	3	0.0014	0.0524	0.1217	0.04	0.008	0.001	0.05
9	2028	1	9	3	0.0014	0.0524	0.1217	0.04	0.008	0.001	0.05
10	2029	1	10	3	0.0014	0.0524	0.1217	0.04	0.008	0.001	0.05
11	2030	1	11	3	0.0014	0.0524	0.1217	0.04	0.008	0.001	0.05
12	2031	1	12	3	0.0014	0.0524	0.1217	0.04	0.008	0.001	0.05
13	2032	1	13	3	0.0014	0.0524	0.1217	0.04	0.008	0.001	0.05
14	2033	1	14	3	0.0014	0.0524	0.1217	0.04	0.008	0.001	0.05
15	2034	1	15	3	0.0014	0.0524	0.1217	0.04	0.008	0.001	0.05
16	2035	1	16	3	0.0014	0.0524	0.1217	0.04	0.008	0.001	0.05
17	2036	1	17	1	0.0014	0.0524	0.1217	0.00	0.0009	0.000	0.005
18	2037	1	18	1	0.0014	0.0524	0.1217	0.00	0.001	0.000	0.005
19	2038	1	19	1	0.0014	0.0524	0.1217	0.00	0.001	0.000	0.005
20	2039	1	20	1	0.0014	0.0524	0.1217	0.00	0.001	0.000	0.005
21	2040	1	21	1	0.0014	0.0524	0.1217	0.00	0.001	0.000	0.005
22	2041	1	22	1	0.0014	0.0524	0.1217	0.00	0.001	0.000	0.005
23	2042	1	23	1	0.0014	0.0524	0.1217	0.00	0.001	0.000	0.005
24	2043	1	24	1	0.0014	0.0524	0.1217	0.00	0.001	0.000	0.005
25	2044	1	25	1	0.0014	0.0524	0.1217	0.00	0.001	0.000	0.005
26	2045	1	26	1	0.0014	0.0524	0.1217	0.00	0.001	0.000	0.005
27	2046	1	27	1	0.0014	0.0524	0.1217	0.00	0.001	0.000	0.005
28	2047	1	28	1	0.0014	0.0524	0.1217	0.00	0.001	0.000	0.005
29	2048	1	29	1	0.0014	0.0524	0.1217	0.00	0.001	0.000	0.005
30	2049	1	30	1	0.0014	0.0524	0.1217	0.00	0.001	0.000	0.005
Total Increased Cancer Risk			**Total**					1.07	0.223	0.031	**1.3**

* Third trimester of pregnancy

Attachment 4: Generator Modeling

Mission Crossings

Fill in		cells		
Source =	**New emergency generator**			
Average Daily Emissions			Size =	300 hp
DPM	7.23E-03	lbs/day	<--- assume 0.15 gm PM10 exhaust per bhp-hr	
			Load Factor =	0.74

Screening Level

Risk	1.04E-05	per million (includes 2015 OEHHA)
PM2.5	0.013968	ug/m**3

Distance to Receptor =	**50**	feet	0.85 Adjustment factor
			Look this up
Adjusted Cancer Risk =	**8.80**	per million	
Adjusted PM2.5 =	**0.01**	ug/m**3	

APPENDIX B

Protected Tree Appraisal Report

ENVIRONMENTAL CONSULTANTS

September 22, 2016

Mr. Justin Derby
MCL Holdings, Inc.
12657 Alcosta Blvd., Suite 175
San Ramon, California 94583

Re: Protected Tree Appraisal Report, Mission Crossings Project, Hayward, California

Dear Mr. Derby:

The purpose of this letter is to inform you of the results of an arborist survey and tree appraisal performed on July 29, 2016 at the site of the proposed Mission Crossings Project located at 25501 Mission Boulevard, in Hayward, Alameda County, California (Study Area). The survey was conducted by WRA's ISA-Certified Arborist (#WE-9300A) and Tree Risk Assessment Qualified arborist for the purpose of identifying the presence, and appraising the value of all protected trees per the City of Hayward Tree Preservation Ordinance (Tree Ordinance) within the limit of grade of the proposed project. The comprehensive arborist survey also included a survey of all existing non-protected "trees" as defined by the Tree Ordinance. This report was prepared in direct response to the City of Hayward request for a comprehensive arborist report on all existing trees within the limit of grade of the Project, and an appraisal of the value of each "protected" tree as defined by the Tree Ordinance.

The approximately 9.6-acre Study Area is located at Mission Boulevard and Torrano Avenue in the City of Hayward (City) and consists of an abandoned commercial property, the former Hayward Ford Car Dealership, Blue Star Motors used car dealership, and an abandoned residential property at 671 Berry Avenue. The Study Area consists predominantly of paved commercial property, and is largely devoid of trees, with the exception of those associated with the abandoned residential property. The residential property contains an abandoned, and dilapidated single-family house with associated ornamental trees, some of which appear to have been planted and some of which are likely volunteers. Land uses adjacent to the Study Area include high-density, urban residential development commercial development.

Regulatory Background

City of Hayward Tree Preservation Ordinance

The City of Hayward Tree Preservation Ordinance encourages the preservation and avoidance of trees during development projects. The City of Hayward Municipal Code, Section 10-15.20 declares it unlawful to "remove, destroy, cut branches over one-inch diameter, disfigure or cause to be removed or destroyed any protected tree within the City without first obtaining a Tree Removal and Cutting Permit." Protected trees are defined in Section 10-5.13 as those with a minimum diameter at breast height (DBH) of 8 inches, street trees, memorial trees dedicated by a City-recognized entity, specimen trees that define a neighborhood or community, and those trees planted to replace a protected tree. In addition, 13 native tree species are protected at 4 inches DBH and above. The native species protected at 4 inches DBH and above include:

- big leaf maple (*Acer macrophyllum*)
- California buckeye (*Aesculus californica*)
- madrone (*Arbutus menziesii*)

- western dogwood (*Cornus nuttallii*)
- California sycamore (*Platanus racemosa*)
- coast live oak (*Quercus agrifolia*)
- canyon live oak (*Quercus chrysolepis*)
- blue oak (*Quercus douglasii*)
- Oregon oak (*Quercus garryana*)
- California black oak (*Quercus kelloggii*)
- valley oak (*Quercus lobata*)
- interior live oak (*Quercus wislizeni*)
- California bay (*Umbellularia californica*)

As per Section 10-15.13, when measuring multi-trunk trees to determine protected status, the diameters of the largest three trunks shall be added together. For instance, a multi-trunk tree of the 13 native species listed above must have an aggregate diameter of the three largest trunks that equals 4 inches DBH, and any other tree species must have an aggregate diameter of the three largest trunks that equals 8 inches in DBH to be considered protected.

The Tree Ordinance defines a non-protected "tree" as: "any woody perennial plant characterized by having a single trunk or multi-trunk structure at least ten feet high and having a major trunk with a caliper of at least four inches measured 54 inches above the ground level. It shall also include those species of plants generally designated as trees."

As per section 10-15.20, the City requires a permit for the removal, relocation, cutting or reshaping of protected trees. Replacement of removed protected trees with like-size, like-kind trees, or equal-value trees, is often required as a condition of approval. In cases where like-size, like-kind trees are not available, the value of protected trees shall be determined using *Guide for Plant Appraisal, 9th Edition* (Council of Tree and Landscape Appraisers "CTLA" 2000).

Methods

On July 29, 2016 the Study Area was traversed on foot to inventory all protected trees per the City of Hayward Tree Preservation Ordinance within and directly adjacent to the limit of grade of the Study Area. WRA's ISA-Certified Arborist traversed the Study Area and recorded relevant information for each protected tree including tree species, DBH (as measured 4.5 feet above grade), condition rating, approximate dripline radius, and estimated height. In addition to protected trees, all "trees" as defined previously were surveyed.

Diameter at breast height (DBH) was calculated for surveyed trees by measuring the trunk diameter at 54 inches above grade. For multi-trunk trees, DBH was calculated by measuring each individual trunk and calculating the sum total of trunk diameters. Dripline radii were recorded to the nearest foot in two directions where possible, using a measuring tape from the trunk to the edge of dripline. In cases where there was an enclosed canopy and radii measurements where not feasible, dripline radii were estimated. All heights of protected trees were estimated in feet. Protected tree locations within the Study Area were recorded using a GPS unit, and tagged with an aluminum tree tag with a unique identifying number. Non-protected tree locations were recorded similarly, using a GPS unit. Non-protected trees that met the definition of "tree" within the Tree Ordinance (having at least one trunk measuring 4 inches diameter or more) were given a unique aluminum tree tag. GPS locations for smaller sapling trees that did not contain at least one trunk measuring 4 inches diameter or more were recorded, but these trees were not tagged.

General notes on the condition of non-protected trees were taken, including health, structure, and overall condition. Assessment of the health, structure, and overall condition of each non-protected tree was conducted according to the narratives listed in Table 1.

Table 1. Rating narratives for tree assessment

Health	
Good	Tree is free from symptoms of disease and stress
Fair	Tree shows some symptoms of disease or stress including twig and small branch dieback, evidence of fungal / parasitic infection, thinning of crown, or poor leaf color
Poor	Tree shows symptoms of severe decline
Structure	
Good	Tree is free from major structural defects
Fair	Tree shows some structural defects in branches but overall structure is stable
Poor	Tree shows structural failure of a major branch or co-dominant trunk
General Condition	
Good	Tree shows condition of foliage, bark, and overall structure characteristic of the species and lacking obvious defect, or disease
Fair	Tree shows condition of foliage, bark, and overall structure characteristic of the species with some evidence of stress, defect, or disease
Poor	Tree shows condition of foliage, bark, and overall structure uncharacteristic of the species with obvious evidence of stress, defect, or disease.

Appraisal Methodology

The "Trunk Formula Method" described in *Guide for Plant Appraisal, 9th Edition* (CTLA) was used to appraise the value of the protected trees within the Study Area. This method is commonly used to appraise the value of landscaped trees that are larger than the largest commercially available transplantable nursery specimen, or 24"-box tree (WC-ISA 2004). The Trunk Formula Method begins by considering the cost to buy and install a 24"-box replacement tree (Installed Tree Cost; determined by Western Chapter-ISA (WC-ISA) as twice the average wholesale cost of a 24"-box tree $345.46), and calculates a cost per square-inch trunk area (Unit Tree Cost) for replacement trees. The Basic Tree Cost of an appraised tree is determined by subtracting the trunk area of the 24"-box replacement tree from the trunk area of the appraised tree, multiplying the difference by the unit tree cost, and adding the installed tree cost. The Basic Tree Cost is then reduced by three depreciation factors, including species, condition, and location ratings to determine the Appraised Value. If the appraised tree is dead, and/or is a hazard tree that needs to be removed, the appraised value is negative, and is equal to the cost of removal.

Species ratings rank overall desirability of the species for landscaping purposes, based on site suitability, hardiness, structural integrity, and longevity. Species ratings range from 10 percent

to 90 percent as determined by the Northern California Regional Plant Appraisal Subcommittee (WC-ISA 2004). Species present within the Study Area are listed in Table 2 below, along with associated ratings. *Species Classification and Group Assignment* (WC-ISA 2004), allows the appraiser to add or deduct 10 percent from individual species ratings based on local considerations. As such, species listed on the California Invasive Plant Council (Cal-IPC) Invasive Plant Inventory Database, were reduced by 10 percent due to their negative ecological impact.

Table 2. Species Ratings of Appraised Trees within Study Area

Species	Common Name	Species Rating	Comments
Alnus rhombifolia	White alder	10%	Native to CA.
Cinnamomum camphora	Camphor	70%	Non-native, ornamental.
Eriobotrya japonica	Japanese loquat	50%	Non-native, ornamental.
Ficus carica	Fig	50%	Non-native, ornamental.
Juglans hindsii	California black walnut	50%	Native to CA.
Juglans regia	English walnut	30%	Non-native, ornamental.
Juniperus chinensis 'Torulosa'	Hollywood juniper	50%	Non-native, ornamental.
Koelreuteria bipinnata	Chinese flame tree	70%	Non-native, ornamental.
Phoenix canariensis	Canary Island date palm	70%	Non-native, ornamental.
Pinus radiata	Monterey pine	20%	Reduced 10% due to its invasiveness outside of native range, and susceptibility to pine pitch canker.
Platanus x *acerifolia*	London plane	70%	Non-native, ornamental.
Populus nigra	Black poplar	30%	Non-native, ornamental.
Prunus cerasifera	Cherry plum	20%	Reduced rating 10% due to Cal-IPC invasive species rating.
Quercus agrifolia	Coast live oak	90%	Native to CA.
Schinus molle	Peruvian pepper tree	40%	Reduced rating by 10% due to Cal-IPC invasive species rating.
Umbellularia californica	California bay	70%	Native to CA.
Xylosma congestum	Xylosma	50%	Non-native, ornamental shrub or small tree.

Overall condition ratings for each tree were determined following "Table 4.3: Guide to Judging Plant Condition" from *Guide for Plant Appraisal, 9th Edition*. Condition rating is determined by rating the structure and health of the roots, trunk, and scaffold branches, and health of small branches and foliage for each appraised tree. Each of the eight attributes was given a score of 1 to 4, with 1 signifying "extreme problems" and 4 signifying "no apparent problems". The total score was divided by the total number of available points to arrive at a percentage condition score.

Location ratings for each tree are determined by the placement of the appraised tree, functional and aesthetic contribution, and the overall rating of the property compared to similar properties in the same city, county, or region. The site rating, contribution rating, and placement rating are

averaged to obtain a location rating for each tree. Site ratings are predicated on the overall appearance of the site from an anthropocentric perspective, in regards to the quality of buildings, landscape structures, and plantings on site. For example, a site with a well-maintained house and a meticulously designed landscape may receive a high rating, while an abandoned property with a dilapidated house, or an unmaintained, naturally occurring woodland may receive a low rating. Contribution rating refers to the functional and aesthetic benefits (e.g. shading, wind control, erosion control, or visual screening) the appraised tree has on the site overall and placement rating rates the effectiveness of realizing the appraised tree's benefits based on its placement within the site.

A very small percentage of the Study Area contains buildings, and the majority of the buildings (e.g. the former Hayward Ford facilities, and the abandoned house at 671 Berry Avenue) are in drastic disrepair. As stated above, the general appearance of the site in which the appraised plant is located is an important factor in rating a site. The former Hayward Ford site and the 671 Berry Avenue contributed to the Study Area receiving a "very low" rating of 50%, due to the dilapidated appearance, and neglected conditions of the buildings, and poor condition and lack of maintenance of the landscapes, as well as the evidence of homeless encampments, and excessive trash covering the 671 Berry Avenue site.

Contribution ratings for each tree were based mainly on size and aesthetic appearance of the tree as well as whether the tree appeared to be purposefully planted in its current location, or if it was an obvious volunteer that had never been cared for or maintained. For example, the majority of the black poplar (*Populus nigra*) trees in the backyard of the 671 Berry Avenue site were obvious "volunteers" (i.e. progeny of a row of Lombardy poplar [*P. nigra* 'Italica'] trees on the neighboring property). These weedy, volunteer trees were overcrowded, and competing for light and resources, as evidenced by their poor growth form and moderate to significant leans. Overcrowded, volunteer trees such as these received a 'very low' rating of (30% to 50%), where as stand-alone, specimen trees received a higher contribution rating (Appendix B, Figure A-2). Placement ratings range from 30% (very low) to 80% (high) and are based on the perceived benefits they provide due to their location and proximity to existing structures, roads, and/or fences and hardscape (Appendix B, Figure A-3). For example, volunteer trees in the middle of the backyard of the 671 Berry Avenue site, away from any structures received a very low placement rating, whereas two of the large black poplar trees in the same backyard along the western fence that provide shade and screening to the neighboring apartment complex, received a higher rating. Trees that were growing against fences and/or structures, and causing damage to the structure (e.g. tree #5953, a contorted, volunteer coast live oak, growing in between two fences, and causing damage to the fence) received a very low (30%) placement rating. Planted and maintained street trees along Mission Boulevard received the highest rating (80%; high).

The appraised values of dead trees were determined by estimating the cost of removal and disposal. Two local tree removal contractors were contacted to obtain estimates on the cost of removal of the 6 dead protected trees within the Study Area (Davey Tree 2016, pers. comm.; Bartlett Tree Service 2016, pers. comm.; August 9). The two contractors had similar rates of 90$ to 95$ per man hour. Removal costs were estimated based on the time it would take for a three-man crew to remove, stump grind, and dispose of the dead trees. It is assumed that each tree, on average, would take one work-day to remove, as most trees would not be reachable from a lift truck, and dead limbs and trunk sections would have to be removed and lowered in sections as opposed to felling. Each dead tree was therefore appraised at a value of -$2,160.

The single Canary Island palm (*Phoenix canariensis*; tree #5926), was appraised using the Trunk Formula Method, however, the Unit Tree Cost for palms is based on trunk-feet, as opposed to basal area. The average price per trunk-foot for Canary Island date palms in the Northern California region is $375 (WC-ISA 2004). Installation cost for a replacement palm of a similar size was estimated by contacting a palm broker (Golden Gate Palms and Exotics 2016, pers. comm.; August 10). Installation costs, which would involve a crane and heavy equipment operator, were estimated at $200 per hour. Installation was estimated at one work day; therefore the installation cost was estimated at $1600.

Results

A total of 42 trees protected per the City of Hayward Tree Ordinance were appraised within the Study Area (Appendix B, Figure A-1). The results and appraisal calculations are shown in Appendix A. The total value of protected trees was appraised at $29,200. A total of 29 non-protected trees were surveyed in the Study Area (Appendix B, Figure B). Pertinent information regarding non-protected trees in the Study Area is provided in Appendix A-2. Representative photographs of the Study Area and of appraised trees are provided in Appendix C.

Limitations

This assessment is based upon conditions observed during the date of the site visit. Tree condition assessments were based on visual observations from the ground level. The arborist did not conduct any root excavation, coring, or aerial inspection to assess above ground conditions. Arborists cannot detect every condition that could possibly contribute to the structural failure or decline in the health of a tree and therefore affect the appraised value. There is no warranty or guarantee, expressed or implied, that problems or deficiencies in surveyed trees may not arise in the future.

The tree appraisal of protected trees within the Study Area followed the Trunk Formula Method outlined in *Guide for Plant Appraisal, 9th Edition*. Factors affecting the appraised value of appraised trees are based on the arborist's knowledge, training, and experience to inspect and assess tree health and condition, as well the arborist's experience in tree appraisal methods and best professional judgement regarding site condition, tree contribution and placement factors.

Recommended Tree Protection Measures

In order to avoid and minimize damage to existing trees which are not proposed for direct impact by project activities, the following measures should be implemented during construction:

- All construction activity (grading, filling, paving, landscaping etc.) shall respect the root protection zone (RPZ) around all trees within the vicinity of the project area. The RPZ should be a distance of 1.0 times the dripline radius measured from the trunk of the tree. Exception to this standard could be considered on a case-by-case basis, provided that it is demonstrated that an encroachment into the RPZ will not affect the root system or the health of the tree, and is authorized by an ISA-Certified Arborist or comparable specialist.
- Temporary protective fencing shall be installed around the dripline of existing trees prior to commencement of any construction activity conducted within 25' of the tree canopy. The fence shall be clearly marked to prevent inadvertent encroachment by heavy machinery.
- Drainage will not be allowed to pond around the base of any tree.

- An ISA-Certified Arborist or tree specialist shall be retained to perform any necessary pruning of trees during construction activity.
- Should any utility lines encroach within the tree protection zone, a single, shared utility conduit shall be used where possible to avoid negative impact to trees.
- Roots exposed, as a result of construction activities shall be covered with wet burlap to avoid desiccation, and should be buried as soon as practicable.
- Construction materials or heavy equipment shall not be stored within the root protection zone.
- Only an ISA-Certified Arborist or comparable specialist will make specific recommendations as to where any existing trees can safely tolerate some level of fill within the drip line.
- Trenches which are required within the RPZ of existing protected trees shall be bored (tunneled) under the root(s) using an auger or drill, rather than trenched, to avoid root disturbance.
- Trenching within RPZ shall be done under the field supervision of an ISA-Certified Arborist and shall be hand dug as much as possible in addition to using auger or drill.
- Construction materials shall be properly stored away from existing trees to avoid spillage or damage to trees.
- A tree removal permit shall be obtained from the City of Hayward Planning Division for removal of any existing protected trees in addition to a grading permit.
- A tree pruning permit shall be obtained from the City of Hayward Planning Division prior to pruning any existing protected trees unless pruning shall be done by an Annual Pruning Certification holder.

Please feel free to contact me or WRA Associate Principal, Matt Richmond if you have any questions or concerns.

Sincerely yours,



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Tree Risk Assessment Qualified (TRAQ)
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Appendix A

Protected Tree Appraisal and Non-Protected Tree Information

Appendix A-1. Protected Tree Appraisal, Mission Crossings Project, Hayward, California

July 2016

Tree Tag #	Species	Common Name	Species Rating	Multi-stem	DBH_ 1	DBH_ 2	DBH_ 3	DBH_ 4	DBH_ 5	Total DBH (In.)	Estimated Height (Ft.)	Crown Radius (Ft.)	Condition Rating	Site Rating	Contribution Rating	Placement Rating	Location Rating	Installed Tree Cost	Unit Tree Cost	Protected Tree Trunk Area (Sq. In.)	Adjusted Trunk Area (Sq. In.)	Replacement Tree Trunk Area (Sq. In.)	Appraised Tree Trunk Increase (Protected Tree Trunk Area - Replacement Tree Trunk Area) (Sq. In.)	Basic Tree Cost (Appraised Tree Trunk Increase X Unit Tree Cost + Installed Tree Cost)	Appraised Value (Basic Tree Cost X Species Rating X Condition X Location Rating)	Appraised Value Rounded (to nearest $100 if >$5000; to $10 if <$5000)
5925	*Eriobotrya japonica*	Japanese loquat	50.00%	No	8.8	0	0	0	0	8.8	22	9	78%	50%	70%	80%	66.67%	$345.46	$ 77.04	60.8	61	2.24	58.6	$4,856.18	$1,264.63	$1,300.00
5926	*Phoenix canariensis*	Canary Island date palm	70.00%	No	43.4	0	0	0	0	43	30	12	81%	50%	80%	80%	70.00%	$1,600.00	$375/TF	N/A	N/A	N/A	N/A	$11,250.00	$4,478.91	$4,500.00
5928	*Pinus radiata*	Monterey pine	20.00%	No	19	0	0	0	0	19.0	45	15	0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-$2,160.00	-$2,200.00
5929	*Pinus radiata*	Monterey pine	20.00%	No	20.6	0	0	0	0	20.6	45	15	0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-$2,160.00	-$2,200.00
5930	*Quercus agrifolia*	Coast live oak	40.00%	No	14.5	0	0	0	0	14.5	30	20	91%	50%	60%	50%	53.33%	$345.46	$ 45.46	165.0	165	3.8	161.2	$7,675.71	$1,483.97	$1,500.00
5931	*Juglans regia*	English walnut	30.00%	Yes	5.3	4.1	0	0	0	9.4	25	10	81%	50%	30%	50%	43.33%	$345.46	$ 45.46	35.2	35	3.8	31.4	$1,775.02	$187.49	$200.00
5932	*Juglans hindsii*	California black walnut	50.00%	No	8.2	0	0	0	0	8.2	25	14	66%	50%	30%	50%	43.33%	$345.46	$ 45.46	52.8	53	3.8	49.0	$2,572.25	$365.74	$400.00
5933	*Populus nigra*	Black poplar	30.00%	No	9.4	0	0	0	0	9.4	35	10	94%	50%	30%	50%	43.33%	$345.46	$ 36.36	69.4	69	4.75	64.6	$2,694.77	$328.43	$300.00
5934	*Populus nigra*	Black poplar	30.00%	Yes	4.6	3.6	3	0	0	11.2	30	11	81%	50%	30%	50%	43.33%	$345.46	$ 36.36	33.8	34	4.75	29.1	$1,403.51	$148.25	$100.00
5935	*Populus nigra*	Black poplar	30.00%	Yes	7.2	3.5	0	0	0	10.7	45	13	66%	50%	30%	50%	43.33%	$345.46	$ 36.36	50.3	50	4.75	45.6	$2,002.05	$170.80	$200.00
5936	*Populus nigra*	Black poplar	30.00%	Yes	8.2	5.5	4.2	0	0	17.9	50	20	72%	50%	30%	50%	43.33%	$345.46	$ 36.36	90.4	90	4.75	85.6	$3,458.86	$323.19	$300.00
5938	*Populus nigra*	Black poplar	30.00%	No	10	0	0	0	0	10.0	45	20	81%	50%	30%	50%	43.33%	$345.46	$ 36.36	78.5	79	4.75	73.8	$3,027.01	$319.73	$300.00
5940	*Populus nigra*	Black poplar	30.00%	Yes	4.4	3.6	0	0	0	8.0	25	13	78%	50%	30%	50%	43.33%	$345.46	$ 36.36	25.4	25	4.75	20.6	$1,095.25	$111.24	$100.00
5943	*Quercus agrifolia*	Coast live oak	90.00%	Yes	4.8	3	0	0	0	7.8	15	8	94%	50%	30%	50%	43.33%	$345.46	$ 45.46	25.2	25	3.8	21.4	$1,316.09	$481.20	$500.00
5944	*Quercus agrifolia*	Coast live oak	90.00%	No	4.2	0	0	0	0	4.2	12	5	94%	50%	30%	50%	43.33%	$345.46	$ 45.46	13.8	14	3.8	10.0	$802.21	$293.31	$300.00
5945	*Populus nigra*	Black poplar	30.00%	Yes	8.5	4.6	0	0	0	13.1	40	25	69%	50%	30%	50%	43.33%	$345.46	$ 36.36	73.3	73	4.75	68.6	$2,838.91	$253.73	$300.00
5946	*Populus nigra*	Black poplar	30.00%	No	11.3	0	0	0	0	11.3	45	35	72%	50%	30%	50%	43.33%	$345.46	$ 36.36	100.2	100	4.75	95.5	$3,817.35	$356.68	$400.00
5949	*Pinus radiata*	Monterey pine	20.00%	No	9.5	0	0	0	0	9.5	35	15	91%	50%	30%	50%	43.33%	$345.46	$ 36.36	70.8	71	4.75	66.1	$2,748.72	$215.89	$200.00
5950	*Umbellularia californica*	California bay	70.00%	Yes	4.5	3.8	3.8	0	0	12.1	12	6	41%	50%	30%	50%	43.33%	$345.46	$ 77.04	38.6	39	2.24	36.3	$3,144.10	$387.44	$400.00
5952	*Pinus radiata*	Monterey pine	20.00%	No	15	0	0	0	0	15.0	40	10	25%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-$2,160.00	-$2,200.00
5953	*Quercus agrifolia*	Coast live oak	90.00%	No	6	0	0	0	0	6.0	12	10	63%	50%	30%	30%	36.67%	$345.46	$ 45.46	28.3	28	3.8	24.5	$1,457.41	$300.59	$300.00
5955	*Juglans regia*	English walnut	30.00%	No	34.5	0	0	0	0	35	25	15	44%	50%	50%	50%	50.00%	$345.46	$ 45.46	934.3	928	3.8	924.2	$42,359.59	$2,779.85	$2,800.00
5956	*Schinus molle*	Pepper tree	40.00%	No	8.1	0	0	0	0	8.1	12	16	69%	50%	40%	50%	46.67%	$345.46	$ 45.46	51.5	52	3.8	47.7	$2,514.08	$322.64	$300.00
5957	*Pinus radiata*	Monterey pine	20.00%	No	8.5	0	0	0	0	8.5	25	10	97%	50%	50%	50%	50.00%	$345.46	$ 36.36	56.7	57	4.75	52.0	$2,234.95	$216.51	$200.00
5958	*Populus nigra*	Black poplar	30.00%	Yes	20	12	8	0	0	40.0	45	37	72%	50%	70%	60%	60.00%	$345.46	$ 36.36	477.3	477	4.75	472.5	$17,526.65	$2,267.51	$2,300.00
5959	*Populus nigra*	Black poplar	30.00%	No	34	0	0	0	0	34	65	30	78%	50%	80%	80%	70.00%	$345.46	$ 36.36	907.5	882	4.75	877.3	$32,242.27	$5,289.75	$5,300.00
5960	*Populus nigra*	Black poplar	30.00%	No	29	0	0	0	0	29.0	65	40	84%	50%	80%	80%	70.00%	$345.46	$ 36.36	660.2	660	4.75	655.4	$24,177.08	$4,283.88	$4,300.00
5961	*Populus nigra*	Black poplar	30.00%	No	35	0	0	0	0	35	45	37	75%	50%	70%	60%	60.00%	$345.46	$ 36.36	961.6	928	4.75	923.3	$33,914.83	$4,578.50	$4,600.00
5962	*Quercus agrifolia*	Coast live oak	90.00%	Yes	2.2	2.7	0	0	0	4.9	12	8	75%	50%	50%	50%	50.00%	$345.46	$ 45.46	9.5	10	3.8	5.7	$605.58	$204.38	$200.00
5963	*Prunus cerasifera*	Cherry plum	20.00%	Yes	4.1	2.5	2.5	0	0	9.1	20	10	47%	50%	30%	50%	43.33%	$345.46	$ 77.04	23.0	23	2.24	20.8	$1,945.45	$79.03	$100.00
5964	*Prunus cerasifera*	Cherry plum	20.00%	Yes	3	3	3	3	3	15.0	15	15	0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-$2,160.00	-$2,200.00
5965	*Juglans regia*	English walnut	30.00%	No	8.1	0	0	0	0	8.1	18	10	34%	50%	50%	50%	50.00%	$345.46	$ 45.46	51.5	52	3.8	47.7	$2,514.08	$129.63	$100.00
5966	*Ficus carica*	Edible fig	50.00%	Yes	7.2	2.8	2.8	0	0	12.8	18	15	63%	50%	30%	30%	36.67%	$345.46	$ 77.04	53.0	53	2.24	50.8	$4,256.26	$487.70	$500.00
5967	*Pinus radiata*	Monterey pine	20.00%	No	15	0	0	0	0	15.0	40	10	0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-$2,160.00	-$2,200.00
5968	*Koelreuteria bipinnata*	Chinese flame tree	70.00%	No	7.6	0	0	0	0	7.6	15	8	91%	50%	80%	80%	70.00%	$345.46	$ 45.46	45.3	45	3.8	41.5	$2,233.94	$992.01	$1,000.00
5969	*Koelreuteria bipinnata*	Chinese flame tree	70.00%	No	7.2	0	0	0	0	7.2	20	10	97%	50%	80%	80%	70.00%	$345.46	$ 45.46	40.7	41	3.8	36.9	$2,022.68	$960.14	$1,000.00
5970	*Koelreuteria bipinnata*	Chinese flame tree	70.00%	No	5.9	0	0	0	0	5.9	15	8	91%	50%	80%	80%	70.00%	$345.46	$ 45.46	27.3	27	3.8	23.5	$1,414.95	$628.32	$600.00
5971	*Platanus x acerifolia*	London plane	70.00%	No	4.6	0	0	0	0	4.6	12	4	91%	50%	80%	80%	70.00%	$345.46	$ 45.46	16.6	17	3.8	12.8	$927.83	$412.01	$400.00
5972	*Cinnamomum camphora*	Camphor	70.00%	No	17.4	0	0	0	0	17.4	25	16	81%	50%	60%	60%	56.67%	$345.46	$ 77.04	237.7	238	2.24	235.4	$18,482.72	$5,956.83	$6,000.00
5973	*Alnus rhombifolia*	White alder	10.00%	No	16.6	0	0	0	0	16.6	25	10	0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-$2,160.00	-$2,200.00
5975	*Juniperus chinensis* 'Torulosa'	Hollywood juniper	50.00%	Yes	6.2	4	4	0	0	14.2	10	5	84%	50%	70%	70%	63.33%	$345.46	$ 45.46	55.3	55	3.8	51.5	$2,686.44	$717.78	$700.00
5978	*Xylosma congestum*	Xylosma	50.00%	Yes	4.8	3.2	1	0	0	9.0	10	5	50%	50%	70%	70%	63.33%	$345.46	$ 82.82	26.9	27	2.09	24.8	$2,401.04	$380.16	$400.00
																								Total Tree Values		**$29,200.00**

Appendix A-2. Arborist Survey, Non-Protected Trees, Mission Crossings Project, Hayward, California
July 2016

ID	Species	Common Name	Multi-stem	DBH_1	DBH_2	DBH_3	DBH_4	DBH_5	Total Diameter (inches)	Protected Tree?	Condition	Health	Structure
5927	*Citrus* x *limon*	Lemon	Yes	2.0	4.0	0.0	0.0	0.0	6.0	No	Poor	Poor	Fair
5937	*Populus nigra*	Black poplar	No	5.6	0.0	0.0	0.0	0.0	5.6	No	Fair	Fair	Poor
5939	*Populus nigra*	Black poplar	No	7.1	0.0	0.0	0.0	0.0	7.1	No	Fair	Fair	Poor
5941	*Populus nigra*	Black poplar	Yes	5.2	2.0	0.0	0.0	0.0	7.2	No	Fair	Good	Poor
5942	*Populus nigra*	Black poplar	No	5.5	0.0	0.0	0.0	0.0	5.5	No	Poor	Fair	Poor
5947	*Pinus radiata*	Monterey pine	No	5.1	0.0	0.0	0.0	0.0	5.1	No	Fair	Fair	Good
5948	*Pinus radiata*	Monterey pine	No	5.8	0.0	0.0	0.0	0.0	5.8	No	Fair	Fair	Good
5951	*Populus nigra*	Black poplar	No	4.5	0.0	0.0	0.0	0.0	4.5	No	Poor	Fair	Poor
5954	*Populus nigra*	Black poplar	No	4.1	0.0	0.0	0.0	0.0	4.1	No	Poor	Fair	Fair
NT	*Quercus agrifolia*	Coast live oak	No	2.1	0.0	0.0	0.0	0.0	2.1	No	Fair	Fair	Fair
NT	*Quercus agrifolia*	Coast live oak	No	2.0	0.0	0.0	0.0	0.0	2.0	No	Fair	Fair	Fair
NT	*Quercus agrifolia*	Coast live oak	No	2.1	0.0	0.0	0.0	0.0	2.1	No	Fair	Fair	Fair
NT	*Populus nigra*	Black poplar	No	2.0	0.0	0.0	0.0	0.0	2.0	No	Poor	Fair	Fair
NT	*Populus nigra*	Black poplar	No	2.8	0.0	0.0	0.0	0.0	2.8	No	Poor	Fair	Fair
NT	*Prunus cerasifera*	Cherry plum	Yes	2.0	2.0	2.0	0.0	0.0	6.0	No	Poor	Poor	Poor
NT	*Quercus agrifolia*	Coast live oak	No	3.2	0.0	0.0	0.0	0.0	3.2	No	Fair	Fair	Fair
NT	*Quercus agrifolia*	Coast live oak	No	3.2	0.0	0.0	0.0	0.0	3.2	No	Fair	Fair	Fair
NT	*Quercus agrifolia*	Coast live oak	No	3.2	0.0	0.0	0.0	0.0	3.2	No	Fair	Fair	Fair
NT	*Quercus agrifolia*	Coast live oak	No	3.0	0.0	0.0	0.0	0.0	3.0	No	Fair	Fair	Fair
NT	*Quercus ilex*	Holly oak	No	2.7	0.0	0.0	0.0	0.0	2.7	No	Fair	Fair	Fair
NT	*Prunus cerasifera*	Cherry plum	Yes	2.0	2.0	2.0	0.0	0.0	6.0	No	Poor	Poor	Poor
NT	*Prunus cerasifera*	Cherry plum	Yes	2.0	2.0	0.0	0.0	0.0	4.0	No	Poor	Poor	Poor
NT	*Prunus cerasifera*	Cherry plum	No	2.0	0.0	0.0	0.0	0.0	2.0	No	Poor	Poor	Poor
NT	*Photinia serratifolia*	Chinese photinia	No	3.4	0.0	0.0	0.0	0.0	3.4	No	Poor	Fair	Fair
NT	*Photinia serratifolia*	Chinese photinia	Yes	2.0	2.0	2.0	0.0	0.0	6.0	No	Poor	Fair	Poor
NT	*Ginko biloba*	Maidenhair tree	No	3.9	0.0	0.0	0.0	0.0	3.9	No	Poor	Poor	Fair
5974	*Juniperus chinensis* 'Torulosa'	Hollywood juniper	No	5.2	0.0	0.0	0.0	0.0	5.2	No	Good	Good	Fair
5976	*Juniperus chinensis* 'Torulosa'	Hollywood juniper	No	6.5	0.0	0.0	0.0	0.0	6.5	No	Good	Good	Good
5977	*Juniperus chinensis* 'Torulosa'	Hollywood juniper	Yes	4.5	3.3	0.0	0.0	0.0	7.8	No	Fair	Fair	Fair

Appendix B

Figures



wra
ENVIRONMENTAL CONSULTANTS

Mission Crossings
Hayward, California

Figure A-1.

Protected Tree Appraisal

N
W E
S

0 50 100
Feet

Map Prepared Date: 8/10/2016
Map Prepared By: mrochelle
Base Source: Esri Streaming - NAIP 2014
Data Source(s): WRA

Path: L:\Acad 2000 Files\26000\26210\GIS\ArcMap\Tree Survey Protected.mxd



wra
ENVIRONMENTAL CONSULTANTS

Mission Crossings
Hayward, California

Figure A-2.

Contribution Ratings

N
W E
S

0 50 100
Feet

Map Prepared Date: 8/10/2016
Map Prepared By: mrochelle
Base Source: Esri Streaming - NAIP 2014
Data Source(s): WRA

Path: L:\Acad 2000 Files\26000\26210\GIS\ArcMap\Tree Survey Contribution.mxd



wra
ENVIRONMENTAL CONSULTANTS

Mission Crossings
Hayward, California

Figure A-3.

Placement Ratings

N
W E
S

0 50 100
Feet

Map Prepared Date: 8/10/2016
Map Prepared By: mrochelle
Base Source: Esri Streaming - NAIP 2014
Data Source(s): WRA

Path: L:\Acad 2000 Files\26000\26210\GIS\ArcMap\Tree Survey Placement.mxd



wra
ENVIRONMENTAL CONSULTANTS

Mission Crossings
Hayward, California

Figure X.

Non-protected Trees

N
W E
S

0 50 100
Feet

Map Prepared Date: 8/10/2016
Map Prepared By: mrochelle
Base Source: Esri Streaming - NAIP 2014
Data Source(s): WRA

Path: L:\Acad 2000 Files\26000\26210\GIS\ArcMap\Tree Survey Non-protected.mxd

Appendix C

Site Photographs



Photograph 1. Abandoned house at 671 Berry Avenue.



Photograph 2. Canary Island date palm (tree #5926). Appraised value: $4,500.



Photograph 3. Coast liv e oak (tree # 5953) growing in between fences, and rated as a very low (30%) placement and contribution location. Appraised value $300.



Photograph 4. Volunteer black poplar (tree #5934) displaying codominant trunks with included bark, assessed as a significant defect. Appraised value: $100.



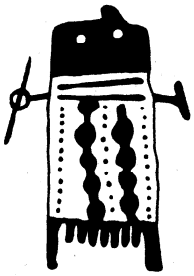
Photograph 5. Photograph depicting canopy of large black poplars providing shade to adjacent apartment building.



Photograph 6. Dead Monterey pine trees that require removal.

APPENDIX C

Built Environment Assessment



March 15, 2017

BASIN
RESEARCH
ASSOCIATES

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Associate Principal
IMPACT SCIENCES
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Oakland, CA 94612

RE: Cultural Resources Assessment Results - Residential Development
Two Parcels 25501 Mission Boulevard and 671 Berry Avenue
City of Hayward, Alameda County

Dear Ms. Ghannam,

Please let this letter stand as Basin Research Associates' summary of a review of the built environment assessment of the proposed Mixed Use Development at the former Hayward Ford dealership located on Mission Boulevard near Harder Road, City of Hayward. Mr. Ward Hill (M.A.), a consulting architectural historian who meets the standards of the Secretary of the Interior, completed a review of the two buildings that will be demolished for the project - the former Hayward Ford dealership at 25501 Mission Boulevard and a single family residence at 671 Berry Avenue, City of Hayward.

The results are presented in the two DPR 523 forms and supplements attached to this letter. The buildings on the two properties are not eligible for the California Register of Historic Places (CRHR) because they are not significant under Criteria 1, 2 or 3. The buildings also are not contributing resources to a CRHR eligible historic district. They do not constitute historic resources under the California Environmental Quality Act (CEQA). Recordation is sufficient mitigation.

FINDINGS - HAYWARD FORD

The Modern Style Hayward Ford dealership at 25501 Mission Boulevard is located on the west side of Mission Boulevard south of Berry Avenue. It is no longer in use. The commercial environment near this parcel includes retail, shopping centers, and auto related uses. The rectangular shaped lot (7.41 acres on an east/west axis) measures approximately 765 feet deep with 328 feet of frontage on Mission Boulevard.

The Hayward Ford complex includes three buildings (auto showroom/auto parts department and two service buildings) surrounded by asphalt paved parking areas. The showroom at the southeast corner of the parcel is joined by a double porte-cochere (auto service drop off area) to a

long, rectangular plan service building on the north. The second service building is set back about 200 feet to the west from the two buildings near Mission Boulevard.

Evaluation

The three Hayward Ford dealership and service buildings at 25501 Mission Boulevard, Hayward retain a good level of historic integrity. The buildings do not appear to have been substantially altered since originally constructed in 1964. The interior of the showroom and the parts department were surveyed and they do not appear to be altered from 1964. The interiors of the other buildings were not accessible.

The Hayward Ford buildings have not been previously evaluated under any local, state or national historic designation criteria. The buildings are not eligible for the California Register of Historical Resources (CRHR) because they are not significant under the Criteria of Significance.

- The building complex does not appear to have significant associations with local themes or cultural patterns of significance in Hayward, thus they do not appear to be eligible for the California Register under Criterion 1.
- Historic research did not identify any significant figures in local history associated with Hayward Ford, thus the buildings do not appear to be significant under California Register Criterion 2.
- The Hayward Ford buildings, even though they retain historic integrity, are not exceptional or distinguished examples of Modern architecture or of a 1960s auto dealership in the Hayward area. The buildings do not appear to be eligible under California Register Criterion 3.

In conclusion, the three Hayward Ford buildings at 25501 Mission Boulevard are not eligible for the CRHR because they are not significant under Criteria 1, 2 or 3. The buildings also are not contributing resources to a CRHR eligible historic district. .

FINDINGS - 671 BERRY AVENUE

The Neo-classical Style house at 671 Berry Avenue is located on the south side of Berry Avenue west of Mission Boulevard. Berry Avenue ends in a cul-de-sac at the Union Pacific railroad tracks to the west. The residential environment near 671 Berry Avenue includes single-family houses and apartment buildings (a nearby parcel includes the Glen Berry Apartments at 626 Berry Avenue). The long, flat, rectangular-shaped lot (0.91 acres on a north/south axis) measures approximately 416 deep by 101 feet of frontage on Berry Avenue. A dirt driveway on the east of the house connects from Berry Avenue to the back yard. A concrete covered walkway is adjacent to the perimeter of the house. The landscaping is limited to a several trees – including a low palm tree on the west – near the house and along the west boundary of the parcel. The lot is otherwise covered with grass and weeds. A temporary chain link fence is around the perimeter of the front yard. A barbed wire fence is along the north side of the parcel.

Alameda County Assessor Records indicate the house was constructed in 1910, a date consistent with the neo-classical style of the building. Historical research identified the earliest occupants and owners of the house as Maria and Frank Enos Silva (both Portuguese immigrants) at Rural

Delivery Route 2, Box 707 (1925-1927 Hayward City Directory); by 1927 the address had changed to 707 Berry Avenue, according to Voter Registration records. The address of the house changed two more times over the subsequent years. Frank E. Silva is listed as a "rancher" in the City Directory. Until recently the house still had an associated barn, shed and tank in back.

Evaluation

The exterior of the house 671 Berry Avenue retains a good level of historic integrity. The condition of the house is now somewhat deteriorated but it does not appear to have been substantially altered. The interior was not surveyed. The loss of the original outbuildings (barn, tank house, sheds) in recent years has compromised the property's historic integrity as an early 20th century farm complex.

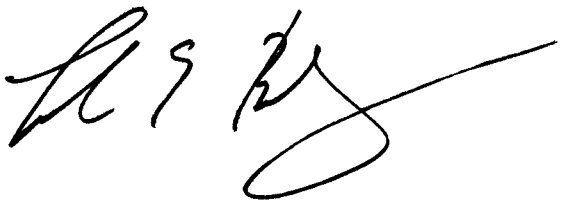
The house has not been previously evaluated under any local, state or national historic designation criteria. 671 Berry Avenue is not eligible for the California Register of Historical Resources (CRHR) because it is not significant under the California Register Criteria of Significance. The house individually does not appear to have significant associations with local themes or cultural patterns of significance, thus the house does not appear to be eligible for the California Register under Criterion 1. Historic research did not identify any significant figures in local history associated with the house, thus the house does not appear to be significant under California Register Criterion 2. The members of the Silva and the Leal families do not appear to be significant in local history. Even though it retains historic integrity, the house is not an exceptional or distinguished example of the Neo Classical Style in the Hayward area, thus it does not appear to be eligible under California Register Criterion 3. Many better, less deteriorated examples of this style are still extant in Hayward.

In conclusion, 671 Berry Avenue is not eligible for the CRHR because it is not significant under Criteria 1, 2 or 3. The house is also not a contributing resource to a CRHR eligible historic district.

CLOSING REMARKS

Please do not hesitate to contact me to discuss the results of the review.

BASIN RESEARCH ASSOCIATES, INC.



Colin I. Busby, Ph.D., RPA
Principal

CIB/m

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code
Other Listings
Review Code Reviewer Date

Page 1 of 9 **Resource Name or #:** Hayward Ford - 25501 Mission Boulevard

P1. Other Identifier: Hayward Ford
P2. Location: ☐ **Not for Publication** ☒ **Unrestricted**
a. County Alameda
b. USGS 7.5' Quad Hayward, CA **Date** 1993 **T3S R2W;** unsectioned ; Mount Diablo **B.M.**
c. Address 25501 Mission Boulevard **City** Hayward **Zip** 94544
d. UTM:
e. Other Locational Data:

APN 444-060-19-4

P3a. Description

The Modern Style Hayward Ford dealership at 25501 Mission Boulevard is located on the west side of Mission Boulevard south of Berry Avenue. The commercial environment near this parcel includes retail, shopping centers, and auto related uses. The rectangular shaped lot (7.41 acres on an east/west axis) measures approximately 765 feet deep with 328 feet of frontage on Mission Boulevard (APN 444-06-019-4).

The Hayward Ford complex includes three buildings (auto showroom/auto parts department and two service buildings) surrounded by asphalt paved parking areas. The showroom at the southeast corner of the parcel is joined by a double porte-cochere (auto service drop off area) to a long, rectangular plan service building on the north. The second service building is set back about 200 feet to the west from the two buildings near Mission Boulevard.

(see continuation sheet)

P3b. Resource Attributes: HP6 — 1-3 story commercial building
P4. Resources present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other



P5b. Description of Photo:
Showroom and Auto parts department – view south

P6. Date Constructed/Age and Sources:
☒ Historic ☐ Prehistoric ☐ Both

P7. Owner and Address
MLC Holdings, Inc
12657 Alcosta Boulevard, Suite 175
San Ramon, CA 94583

P8. Recorded by:

Ward Hill, M.A.
Basin Research Associates
1933 Davis Street, STE 210
San Leandro, CA 94577

P9. Date Recorded February 2017

P10. Survey Type:
Intensive for recordation

P11. Report Citation N/A

Attachments: ☐ NONE ☒ Location Map ☐ Sketch Map ☒ Continuation Sheet ☒ Building, Structure and Object Record
☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record
☐ Photograph Record ☐ Other (List)

B1. Historic Name: Hayward Ford Motors

B2. Common Name: Hayward Ford

B3. Original Use: Car Dealership B4. Present Use: Vacant

B5. Architectural Style: Modern Style

The showroom and service buildings were constructed in 1964. The buildings do not appear to have been substantially altered since their originally construction.

B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: Original Location:

B8. Related Features:

B9a. Architect: N/A B9b.

B10. Significance: Theme N/A **Area** N/A

Period of Significance N/A **Property Type** N/A **Applicable Criteria** N/A

Historical Background

The City of Hayward had a number of earlier Ford dealerships before Hayward Ford's opening at 25501 Mission Boulevard in 1964. One of the first Ford dealerships was Dohner and Galbraith Autos at 1075 A Street dating from the 1920s. This dealership moved to 838 A Street in Hayward by 1934. The dealer was also known as Dohner-Galbraith Motors, Dohner-Herbert Motors and Dohner Motors. This Ford dealer was renamed Hayward Ford Motors in 1950; it moved to 25501 Mission Boulevard on August 1, 1964. Construction on the new dealership began in February 1964 under the direction of co-owners Arthur Brabant and Lyonel G. Sullivan. The firm had been in downtown Hayward for thirty years.

The new dealership covered 8 acres and it had 58 service stalls for vehicles. The dealership indicated it would have 100 employees and expected revenue of $ 10 million annually (The Daily Review 1963:13). The Hayward Ford Motor had legal and financial problems and abruptly closed in January, 1974. The dealer suddenly closed after the Ford Motor Credit Company alleged in a court suit that the dealer was borrowing money to buy cars from the parent Ford Motor Company and not repaying the loans when the cars were sold to consumers. The Ford Credit charged that Hayward Ford owed them over $ 365,000 and had $ 2 million in new cars owned by Ford Credit. A court injunction prevented Hayward Ford from selling any more cars. Later in 1974 it reopened as Ed Chandler Ford. In 1993, the dealership name changed again to Hayward Ford. The dealership closed and moved to San Leandro in 2008. The Hayward Ford buildings at 25501 Mission Boulevard have been vacant since 2008.

B11. Additional Resource Attributes: (List attributes and codes)

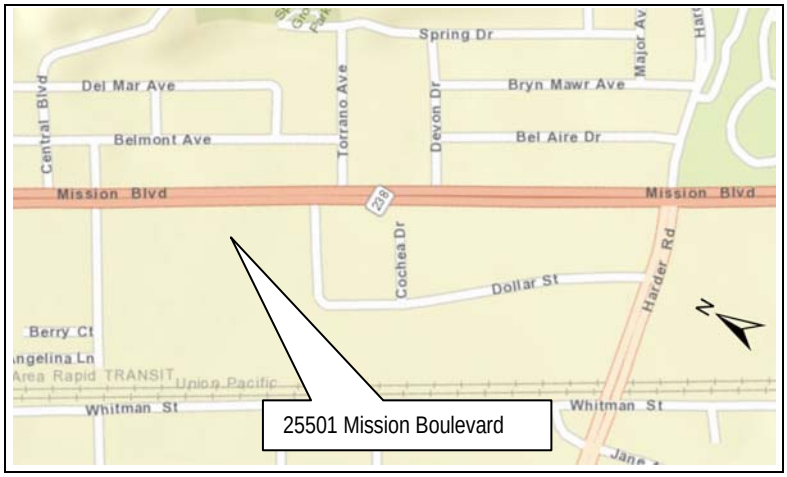
B12. References: (see continuation sheet)

B13. Remarks:

B14. Evaluator Ward Hill, Architectural Historian

Date of Evaluation: February 2017

(This space reserved for official comments)



P3a. Description, con't

Showroom/auto parts department building

The showroom building is organized in three major sections (the main showroom, a lower office wing on the north and a two-story rear wing for storing parts). The building appears to be constructed of concrete and steel frame. The auto showroom has large fixed windows opening out to an area on the east landscaped with grass and low trimmed shrubs (adjacent to Mission Boulevard). The landscaped area has concrete steps leading to two circular concrete pads used for outdoor auto displays. The showroom roof has a prominent fascia (with the Hayward Ford sign) and wide plain eaves. The lower office wing on the north has stone facing on the east and the main entrance to the parts department on the north. The two-story parts warehouse at the southwest corner of the building has no windows on the west and south facades; a garage opening on the west façade is now boarded up. The showroom interior is a large free-span space with fluorescent lighting. A series of sales offices along the west open into the showroom. A hallway from the showroom area leads west to the auto parts sales and storage warehouse. The other areas in the building's interior were not accessible.

Auto service buildings

The two, simply detailed, single story auto service buildings are constructed of concrete block structures with a flat roof. Both buildings are largely a series of service bays on each façade (the dealership originally had 38 service bays). The auto service building joined to the showroom/parts building has a series of auto service bays on the west. The building steps down on the east with a row of offices for sales staff (facing the front auto sales lot next to Mission Boulevard). A covered outside walkway provides access to the offices. The T-shaped service building on the west side of the parcel has a central office area on the east and a series of service bays with metal roll-up garage doors on the other facades.

Evaluation

The three Hayward Ford dealership and service buildings at 25501 Mission Boulevard, Hayward retain a good level of historic integrity. The buildings do not appear to have been substantially altered since originally constructed in 1964. The interior of the showroom and the parts department were surveyed and they do not appear to be altered from 1964. The interiors of the other buildings were not accessible.

The Hayward Ford buildings have not been previously evaluated under any local, state or national historic designation criteria. The buildings are not eligible for the California Register of Historical Resources (CRHR) because they are not significant under the Criteria of Significance.

- The building complex does not appear to have significant associations with local themes or cultural patterns of significance in Hayward, thus they do not appear to be eligible for the California Register under Criterion 1.
- Historic research did not identify any significant figures in local history associated with Hayward Ford, thus the buildings do not appear to be significant under California Register Criterion 2.
- The Hayward Ford buildings, even though they retain historic integrity, are not exceptional or distinguished examples of Modern architecture or of a 1960s auto dealership in the Hayward area. The buildings do not appear to be eligible under California Register Criterion 3.

In conclusion, the three Hayward Ford buildings at 25501 Mission Boulevard are not eligible for the CRHR because they are not significant under Criteria 1, 2 or 3. The buildings also are not contributing resources to a CRHR eligible historic district.

B12. References, continued

City of Hayward City Directories 1964-1975

"New Ford Center," *The Daily Review*, December 17, 1963, pg. 11.

"Ford Center Job Starts Next Month," *The Daily Review*, December 18, 1963, pg 13.

"Site for Agency," *The Daily Review*, February 12, 1964.

"New Ford Center is Ready," *The Daily Review*, September 2, 1964.

"Open House," *The Daily Review*, September 6, 1964.

"Hayward Ford in sudden closure," *The Daily Review*, January 17, 1975.

"Hayward Ford legally barred from sales," *The Daily Review*, January 18, 1975.

"Injunction issued on Ford firm," *The Daily Review*, February 22, 1975, pg. 2

John Christian, Hayward Area Historical Society, "Hayward Ford" November, 2012. Short history of Ford dealerships in Hayward.

P5a. Photo



Main showroom with the two-story rear wing for storing parts visible to left – view to west



Hayward Ford complex, with showroom building to left, sales staff offices in service building to right, and the front auto sales lot – view to south

P5a. Photo



Service building with sales staff offices, and the front auto sales lot – view to west



Service building, with auto service bays on the west side – view to southeast

P5a. Photo



Rear of showroom building, two-story parts storage area – view to northeast



T-shaped auto service building, east façade – view to northwest

P5a. Photo



T-shaped auto service building, west façades – view northeast



T-shaped auto service building, north and west wings – view east

P5a. Photo



Showroom interior, with sales offices along the west wall

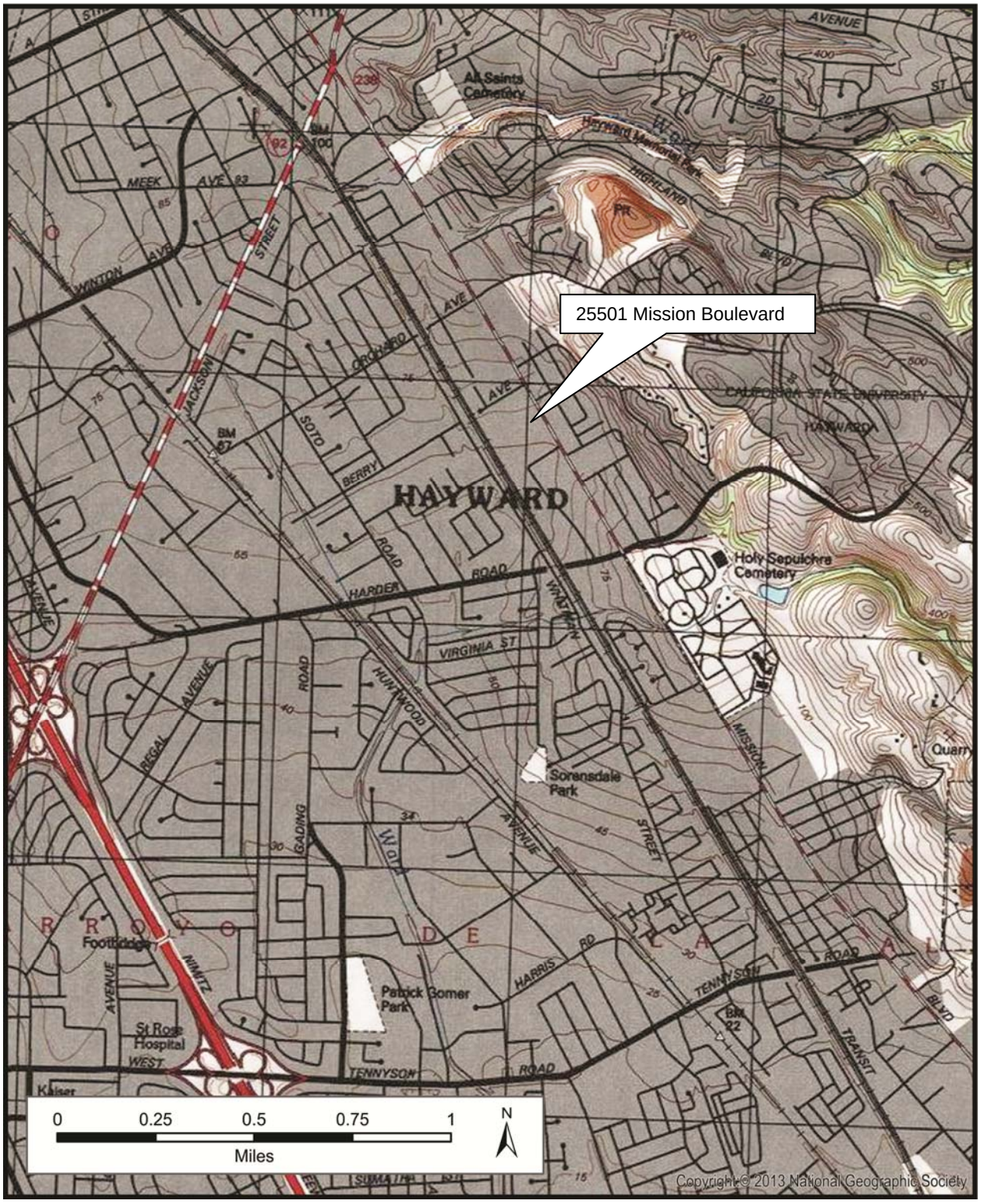


Aerial view of building locations

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #
HRI #
Trinomial

Page 9 of 9 **Resource Name or #:** Hayward Ford - 25501 Mission Boulevard
USGS Hayward, CA 1993 **Date:** February 2017 ☒ Continuation ☐ Update



State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code
Other Listings
Review Code Reviewer Date

 Resource Name or #: 671 Berry Avenue

P1. Other Identifier: Silva House
P2. Location: ☐ **Not for Publication** ☒ **Unrestricted**
- **a. County** Alameda
- **b. USGS 7.5' Quad** Hayward, CA **Date** 1993 **T3S R2W;** unsectioned ; Mount Diablo **B.M.**
- **c. Address** 671 Berry Avenue **City** Hayward **Zip** 94544
- **d. UTM:**
- **e. Other Locational Data:**

APN 444-060-04

P3a. Description

The Neo-classical Style house at 671 Berry Avenue is located on the south side of Berry Avenue west of Mission Boulevard. Berry Avenue ends in a cul-de-sac at the Union Pacific railroad tracks to the west. The residential environment near 671 Berry Avenue includes single-family houses and apartment buildings (a nearby parcel includes the Glen Berry Apartments at 626 Berry Avenue). The long, flat, rectangular-shaped lot (0.91 acres on a north/south axis) measures approximately 416 deep by 101 feet of frontage on Berry Avenue. A dirt driveway on the east of the house connects from Berry Avenue to the back yard. A concrete covered walkway is adjacent to the perimeter of the house. The landscaping is limited to a several trees – including a low palm tree on the west – near the house and along the west boundary of the parcel. The lot is otherwise covered with grass and weeds. A temporary chain link fence is around the perimeter of the front yard. A barbed wire fence is along the north side of the parcel.

The simply detailed single-family, single-story house has a moderately pitched hipped-gable roof covered with asphalt shingles. The building appears to be in poor condition. Some of the shingles are missing on the rear slope (south) of the roof, exposing the interior to damage from the elements. A dormer with a hipped roof projects from the front (north) side of the roof. The roof has wide, plain eaves and fascia boards below the eaves. The house has exterior clapboard siding except for rustic siding covering the base. The large projecting front gable covers the entrance porch on the west. Many of the doors and windows are now boarded over.

(see continuation sheet)

P3b. Resource Attributes: HP2 – single family property; HP33 – Farm/Ranch
P4. Resources present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other



P5b. Description of Photo:
Front façade – view to south

P6. Date Constructed/Age and Sources:
☒ Historic ☐ Prehistoric ☐ Both
1910

P7. Owner and Address
MLC Holdings, Inc
12657 Alcosta Boulevard, Suite 175
San Ramon, CA 94583

P8. Recorded by:

Ward Hill, M.A.
Basin Research Associates
1933 Davis Street, STE 210
San Leandro, CA 94577

P9. Date Recorded February 2017

P10. Survey Type:
Intensive for recordation

P11. Report Citation N/A

Attachments: ☐ NONE ☒ Location Map ☐ Sketch Map ☒ Continuation Sheet ☒ Building, Structure and Object Record
☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record
☐ Photograph Record ☐ Other (List)

B1. Historic Name: Silva House
B2. Common Name:
B3. Original Use: Residence B4. Present Use: Vacant
B5. Architectural Style: Neo-classical Style

The house was constructed in 1910. The exterior does not appear to have been altered.

B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: Original Location:
B8. Related Features:
B9a. Architect: N/A B9b.
B10. Significance: Theme N/A **Area** N/A
Period of Significance N/A **Property Type** N/A **Applicable Criteria** N/A

Historical Background

Alameda County Assessor Records indicate the house at 671 Berry Street was constructed in 1910, a date consistent with the neo-classical style of the building. Historical research identified the earliest occupants and owners of the house as Maria and Frank Enos Silva (both Portuguese immigrants) at Rural Delivery Route 2, Box 707 (1925-1927 Hayward City Directory); by 1927 the address had changed to 707 Berry Avenue, according to Voter Registration records. The address of the house changed two more times over the subsequent years. Frank E. Silva is listed as a "rancher" in the City Directory. Until recently the house still had an associated barn, shed and tank in back.

The Silvas had three children: Mary (born 1897), and Lena and Ernest (born 1902). The Silvas are listed in the 1920 U.S. Census at Mountain Road in Eden Township. Ernest (18 years old) is a laborer and Frank is a farmer. After Maria Silva died in October, 1932, Mary Silva Leal and her husband Peter Leal moved into the Berry Avenue house. In the 1929-30 Hayward City Directory Mary and Peter Leal (born 1896) had been listed at 127 Sunset Boulevard. In 1934, Peter Leal is identified as a "laborer" with the California Conserving Company in Hayward (home address 707 Berry Avenue). The Berry Avenue house's address had changed to 1272 Berry Avenue by 1937, the year Frank Silva died at the age of 78. A 1939 aerial on file at the Hayward Area Historical Society archives shows part of the original orchard on the property still extant. The 1940 U.S. Census has Mary and Peter Leal living with Marie, a niece, and nephew, Arthur. In 1962, Peter Leal is an employee with Hunt Foods, Hayward and he is living with Mary Leal at 671 Berry Avenue. The City Directory shows Peter Leal as "retired" by 1965; he lived at the Berry Avenue house until his death in 1985.

B11. Additional Resource Attributes: (List attributes and codes)

B12. References: (see continuation sheet)

B13. Remarks: Property currently used for construction staging.

B14. Evaluator Ward Hill, Architectural Historian

Date of Evaluation: February 2017

(This space reserved for official comments)



P3a. Description, con't

The front façade has a bowed bay window with three wood sash double-hung windows. The other windows in the house (now largely boarded up) also appear to be wood-sash double-hung, windows, mostly six over six. A large recessed entrance porch is adjacent to the front bay window. A central wooden stair leads up to the entrance porch, enclosed by a low wall below a horizontal semi-circular opening on the north and east. A row of lathed spools forms a decorative frame along the top of the opening into the front porch. A wooden stair on the rear (south) façade leads up to an exit door opening into the kitchen. A boarded up opening adjacent to the rear stair appears to provide access to the basement. An exterior red brick chimney on the east façade penetrates the roof eaves.

The interior was not accessible. The rear kitchen and utility room were viewed through an opening on the south. According to public records, the house has an interior of 1,248 square feet including a living room, kitchen, two bedrooms and one bathroom.

Evaluation

The exterior of the house 671 Berry Avenue retains a good level of historic integrity. The condition of the house is now somewhat deteriorated but it does not appear to have been substantially altered. The interior was not surveyed. The loss of the original outbuildings (barn, tank house, sheds) in recent years has compromised the property's historic integrity as an early 20th century farm complex.

The house has not been previously evaluated under any local, state or national historic designation criteria. 671 Berry Avenue is not eligible for the California Register of Historical Resources because it is not significant under the California Register Criteria of Significance. The house individually does not appear to have significant associations with local themes or cultural patterns of significance, thus the house does not appear to be eligible for the California Register under Criterion 1. Historic research did not identify any significant figures in local history associated with the house, thus the house does not appear to be significant under California Register Criterion 2. The members of the Silva and the Leal families do not appear to be significant in local history. Even though it retains historic integrity, the house is not an exceptional or distinguished example of the Neo Classical Style in the Hayward area, thus it does not appear to be eligible under California Register Criterion 3. Many better, less deteriorated examples of this style are still extant in Hayward.

In conclusion, 671 Berry Avenue is not eligible for the California Register because it is not significant under California Register Criteria 1, 2 or 3. The house is also not a contributing resource to a California Register eligible historic district.

B12. References

1926 Marriage License Alameda County: Mary Silva & Peter Leal

Alameda County Voter Registration – 1927-37 (Frank E. Silva)

California Death Index, 1940-1997 "Peter Leal"

City of Hayward City Directories 1924-1970

ERAS Environmental, Inc. Phase I Environmental Site Assessment, 671 Berry Avenue, Hayward, California, April 13, 2012.

"Mrs. Maria Silva is Laid to Rest," *Daily Review*, October 10, 1932, pg. 6.

Obituary for Frank E. Silva, *Hayward Daily Review*, May 26, 1937, pg. 5.

"Frank Enos Silva Paid Last Tribute," *Hayward Daily Review*, May 29, 1937, pg. 3.

Obituary for Ernest Silva, *Daily Review*, April 17, 1967

1939 Hayward Aerial. On file at the Hayward Area Historical Society

1959 Eden Township Assessor Block maps, on file at Hayward Area Historical Society.

United States Federal Census, 1920-1940.

U.S. World War II Draft Registration card, 1942, for Peter Leal

P5a. Photo



671 Berry Avenue, east side and rear façades

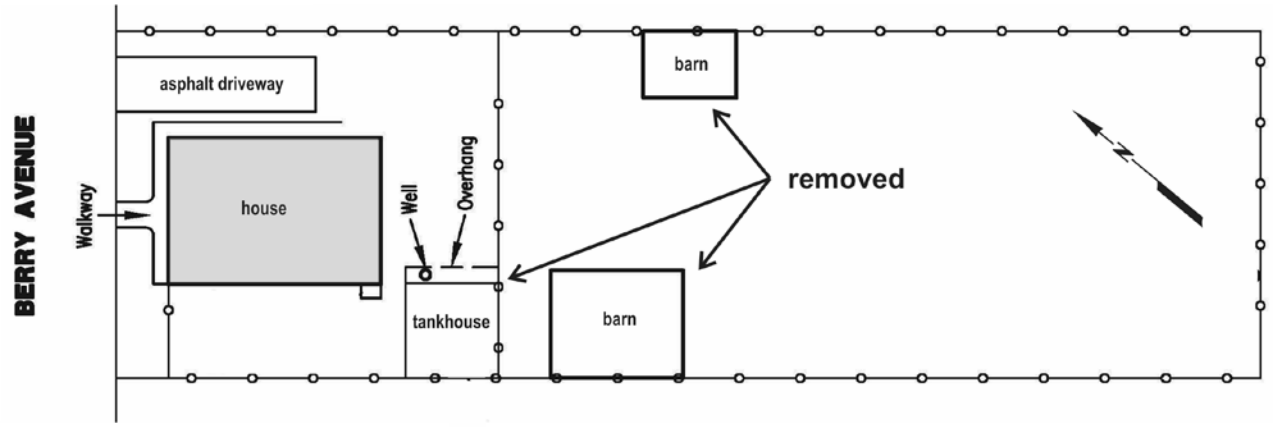


671 Berry Avenue, rear façade, view to north

P5a. Photo



671 Berry Avenue, front and east side façades showing porch details

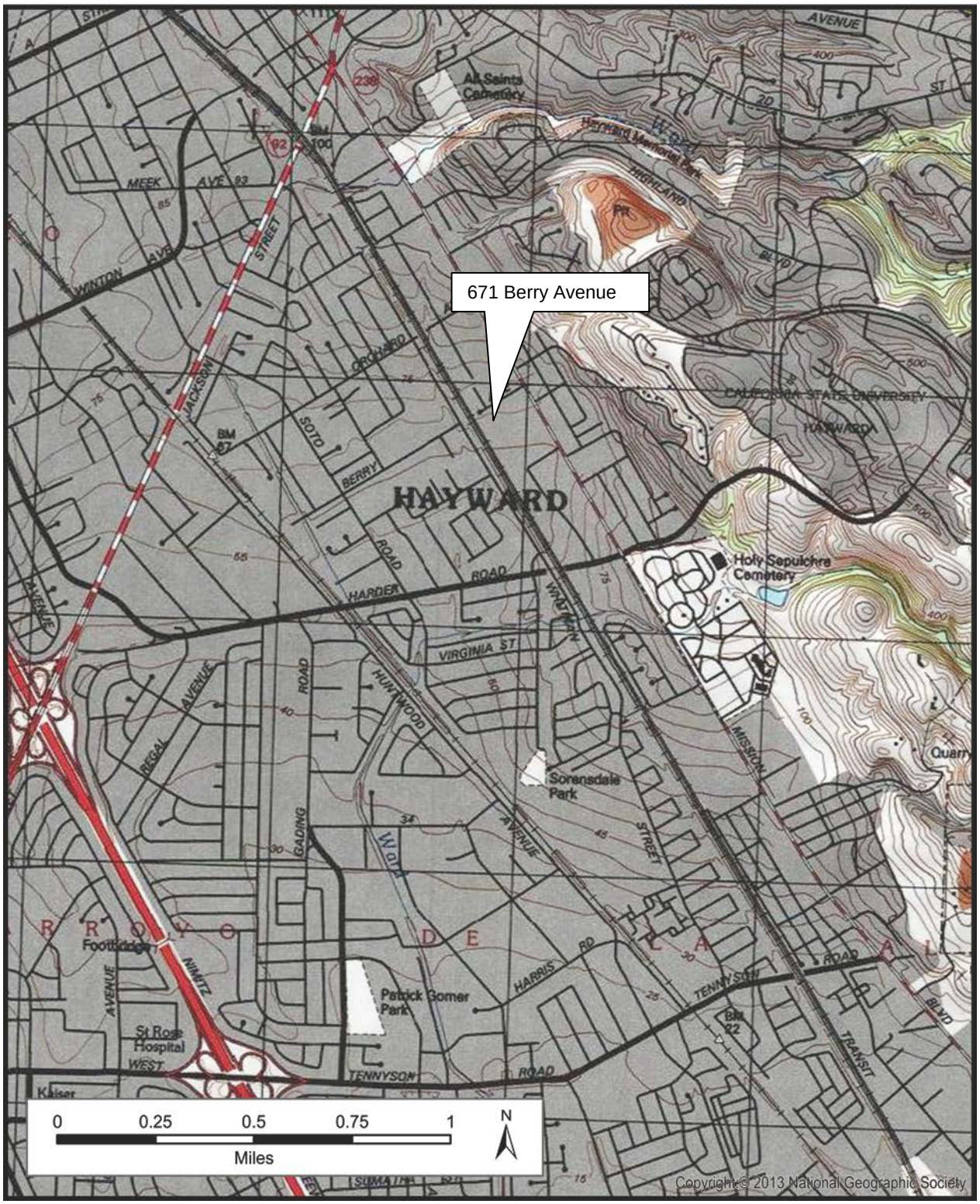


671 Berry Avenue site plan – outbuildings have been demolished (Eras Environmental 2012)

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #
HRI #
Trinomial

Page 6 of 6 **Resource Name or #:** 671 Berry Avenue
USGS Hayward, CA 1993 **Date:** February 2017 ☒ Continuation ☐ Update



APPENDIX D

Geotechnical Feasibility Assessment

GEOTECHNICAL FEASIBILITY ASSESSMENT

FORMER HAYWARD FORD SITE
HAYWARD, CALIFORNIA



Submitted to:
Mr. Justin Derby
MLC Holdings, Inc.
12657 Alcosta Boulevard, Suite 175
San Ramon, CA 94583

Prepared by:
ENGEO Incorporated

September 11, 2015

Project No:
12288.000.000

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Project No.
12288.000.000

September 11, 2015

Mr. Justin Derby
MLC Holdings, Inc.
12657 Alcosta Boulevard, Suite 175
San Ramon, CA 94583

Subject: Former Hayward Ford Site
Hayward, California

GEOTECHNICAL FEASIBILITY ASSESSMENT

Dear Mr. Derby:

ENGEO prepared this geotechnical feasibility assessment for the Former Hayward Ford property as outlined as Task 3 in our proposal revised August 17, 2015. The accompanying report presents our findings, conclusions and preliminary recommendations for project planning.

As you and the project team move forward with the project, we are ready to assist you with a design-level geotechnical exploration to further evaluate the geologic hazards identified in this report and provide design-level recommendations for site development.

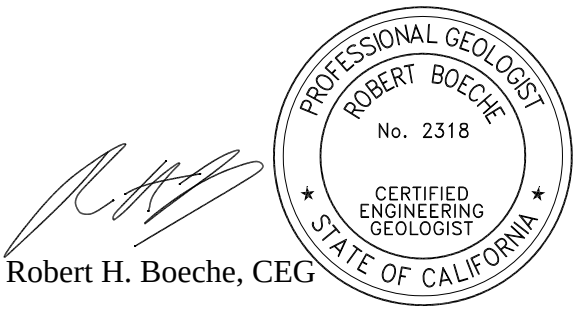
If you have any questions or comments regarding this report, please call and we will be glad to discuss them with you.

Sincerely,

ENGEO Incorporated



Ian D. McCreery, EIT
idm/rhb/bvv



Robert H. Boeche, CEG

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1.0 INTRODUCTION

1.1 PURPOSE AND SCOPE

The purpose of this geotechnical feasibility assessment is to perform a preliminary study of available documents to characterize subsurface conditions to identify basic geotechnical considerations for project development and potential geologic hazards within the planned development concept. The scope of our services included:

- Review of available geologic maps, available online or in-house aerial photographs, and historical topography.
- Preliminary assessment of geological hazards at the site and in the general project area.
- Preparing this report summarizing our findings and preliminary recommendations.

We prepared this report exclusively for MLC Holdings, Inc., and their design team consultants. ENGEO should review any changes made in the character, design or layout of the development to modify the conclusions and recommendations contained in this report, as necessary. This document may not be reproduced in whole or in part by any means whatsoever, nor may it be quoted or excerpted without the express written consent of ENGEO.

1.2 PROJECT LOCATION AND DESCRIPTION

The roughly 9.6-acre irregular-shaped site is generally located northwest of Mission Boulevard and Torrano Avenue in Hayward, California. The overall site is comprised of the four parcels identified by Assessor Parcel Numbers (APN) and addresses listed in the Table 1.2-1.

TABLE 1.2-1
Parcels Associated with the Property

Address	APN	Identifier
25501 Mission Boulevard	444-60-19-4	Former Hayward Ford
25551 Mission Boulevard	444-60-31	
Torrano Avenue	444-60-30	
671 Berry Avenue	444-60-4	Pifer Property

1.3 PROPOSED CONCEPTUAL DEVELOPMENT

The conceptual development plan includes residential units and possible commercial use along the street frontage. A formal conceptual plan was not provided to us before of this report was published.

2.0 GEOLOGY AND SEISMICITY

2.1 REGIONAL AND SITE GEOLOGY

The region is within the Coast Range Province of California, an area dominated by northwest-trending geologic features such as folds and faults. More specifically, the subject site is located on alluvial deposits near the eastern margin of the San Francisco Bay. The San Francisco Bay is located in a fault bound, elongated structural trough that has been filled with a sequence of Quaternary age sedimentary deposits derived from the surrounding Coast Ranges.

The regional geologic map prepared by Graymer, et al. (2000) (Figure 3) indicates that the property is underlain by Holocene age alluvial fan and fluvial deposits (Qhaf) and Pleistocene age alluvial fan and fluvial deposits (Qpaf), consisting of alluvial gravel, sand and clay of valley areas and gravel and sand of major stream channels. In addition, geologic mapping prepared by Dibblee (2005), indicates the site is underlain by alluvial deposits (Qa). Similarly, Helley and Graymer (1997) mapped the northern portion of the site as Holocene-age alluvial fan deposits (Qhaf) and the southern portion of the site as Holocene-age flood plain deposits (Qhfp).

2.2 SITE SEISMICITY

The site is not located within a currently designated Alquist-Priolo Earthquake Fault Zone, although the Hayward Fault is located approximately 800 feet west (Figure 4). No known surface expression of active faults is believed to exist within the site. An active fault is defined by the State Mining and Geology Board as one that has had surface displacement within Holocene time (about the last 11,000 years) (Hart, 1997). Based on the United States Geologic Survey (USGS) 2008 National Seismic Hazard Maps and Fault Parameters, nearby active or potentially active faults include the Hayward fault and the San Andreas fault. Faults within a 25-mile radius of the site capable of producing significant ground shaking at the site are included in the table below:

TABLE 2.1-1
Active Faults Capable of Producing Significant Ground Shaking at the Site

Fault Name	Distance from Site (miles)	Direction from Site	Maximum Moment Magnitude
Hayward-Rodgers Creek	0.2	Northeast	6.8
Calaveras	8.0	East	7.0
Mt. Diablo Thrust	12.7	Northeast	6.7
Green Valley Connected	17.5	North	6.8
Monte Vista-Shannon	18.0	Southwest	6.5
San Andreas	18.0	West	7.5
Greenville	19.3	East	7.0

Numerous small earthquakes occur every year in the San Francisco Bay Region, and large (>M7) earthquakes have been recorded and can be expected to occur in the future. Figure 6 shows the approximate locations of these faults and significant historic earthquakes recorded within the Greater Bay Area Region.

The site is not located within an area susceptible to liquefaction according to the State of California Seismic Hazard Zones Map (CGS, Hayward Quadrangle, 2006), as shown on Figure 5. A site-specific liquefaction analysis should be performed to confirm the extent of liquefaction hazards, if any.

3.0 SITE RECONNAISSANCE

The relatively flat site is at an elevation of approximately 66 feet above sea level. The automotive dealership and service facilities are located along Mission Boulevard and roughly in the center of the project site. A used car sales lot is located on the corner of Mission Boulevard and Torrano Avenue. The remainder of the property is paved, with the exception of the unpaved lot located behind the residential structure at 671 Berry Avenue. A dense shrub and tree line is located along the southwest boundary of the 671 Berry Avenue.

4.0 DOCUMENT REVIEW

4.1 HISTORICAL PHOTO REVIEW

We reviewed aerial photographs of the site dated from 1946 through 2012 that were available online at www.historicaerials.com and through Google Earth.

Based on the historic aerial photograph records, the property appears to be mainly used for agricultural purposes with minor residential structures until approximately 1960. Several residential structures and the agricultural areas have been removed and the site appears to be graded in the 1960 photograph. By 1966, the existing ford dealership structures along with significant development of the surrounding areas are visible.

Aerial photos from 1966 to 2005 indicate that site improvements remain unchanged and resemble the current site conditions. Vehicles previously parked in the lots surrounding the structures are removed from the photographs from 2009 to 2012, indicating the dealership closed.

4.2 PREVIOUS STUDIES

We reviewed previous geotechnical reports we prepared for properties located within a ½-mile radius of the project site to determine generalized subsurface conditions in the vicinity.

Based on subsurface information reviewed, we anticipate the project site is underlain by stiff to hard lean and fat clay layers with variable amounts of gravel, sand, and silt in the upper 30 to

40 feet. Below 30 feet, a clayey matrix with interbedded lenses of medium dense silty sand and sandy silt was encountered to a depth of roughly 50 feet.

Fat clay with high plasticity (measured plasticity indices ranged from 20 to 38) was commonly encountered in nearby geotechnical explorations in near surface samples. As such, there is a potential for highly expansive clays to be present within the upper 5 feet of the project site. While the site was not mapped in a liquefaction zone, a liquefaction analysis should be conducted to confirm the potential of liquefaction hazards.

Fill was encountered on nearby sites, ranging from 1 to 7 feet thick. Undocumented fill may potentially be located onsite, but specific fill locations, depths, and content may be evaluated by digging test pits or advancing auger borings.

Groundwater was encountered at depths ranging from 15 to 30 feet below the ground surface (bgs) between 2000 and 2015. In addition, during our review of environmental documents, groundwater has been measured at the site at depths ranging from 25 to 30 feet bgs in 1992. Historical high groundwater levels were mapped by the California Geologic Survey (CGS) at a depth of approximately 20 to 30 feet bgs. Fluctuations in groundwater levels should be expected during seasonal changes or over a period of years because of precipitation changes, perched zones, changes in drainage patterns, and/or irrigation.

5.0 GEOLOGIC AND GEOTECHNICAL HAZARDS

The focus of this study was to assess the site with respect to known or potential geologic and other hazards common to the greater San Francisco Bay Region. The primary hazards and risks associated with these hazards with respect to the planned development are discussed in the following sections of this report.

5.1 SEISMIC HAZARDS

Potential seismic hazards resulting from a nearby moderate to major earthquake can generally be classified as primary and secondary. The primary effect is ground rupture, also called surface faulting. The common secondary seismic hazards include ground shaking, liquefaction, and lateral spreading. These hazards are discussed in the following sections.

Based on topographic and lithologic data, the risk of regional subsidence/uplift, landslides, tsunamis, or seiches is considered low to negligible at the site.

5.1.1 Ground Rupture

Since there are no known active faults crossing the property and the site is not located within an Earthquake Fault Special Study Zone, it is our opinion that ground rupture is unlikely at the subject property.

5.1.2 Ground Shaking

An earthquake of moderate to high magnitude generated within the San Francisco Bay Region could cause considerable ground shaking at the site, similar to that which has occurred in the past. To mitigate the shaking effects, all structures should be designed using sound engineering judgment and the latest California Building Code (CBC) requirements, as a minimum.

Seismic design provisions of current building codes generally prescribe minimum lateral forces, applied statically to the structure, combined with the gravity forces of dead-and-live loads. The code-prescribed lateral forces are generally considered to be substantially smaller than the comparable forces that would be associated with a major earthquake. Therefore, structures should be able to: (1) resist minor earthquakes without damage, (2) resist moderate earthquakes without structural damage but with some nonstructural damage, and (3) resist major earthquakes without collapse but with some structural as well as nonstructural damage. Conformance to the current building code recommendations does not constitute any kind of guarantee that significant structural damage would not occur in the event of a maximum magnitude earthquake; however, it is reasonable to expect that a well-designed and well-constructed structure will not collapse or cause loss of life in a major earthquake (SEAOC, 1996).

5.1.3 Liquefaction And Liquefaction-Induced Ground Settlement

Soil liquefaction results from loss of strength during cyclic loading, such as imposed by earthquakes. Soils most susceptible to liquefaction are clean, loose, saturated, uniformly graded fine sands below the groundwater table. When seismic ground shaking occurs, the soil is subjected to cyclic shear stresses that can cause excess hydrostatic pressures to develop and liquefaction of susceptible soil to occur.

Historically, standard geotechnical engineering practices for liquefaction assessment have included layers of loose to medium dense and saturated sandy deposits as being potentially liquefiable. However, empirical evidence from recent major earthquakes and published research projects at major universities indicate that some fine-grained soils (including low plasticity silts and clays) can also liquefy.

Review of the Seismic Hazard Zones Map for the Hayward Quadrangle (Figure 5) indicates that site is not located within a mapped liquefaction zone. Additionally, based on the generalized subsurface conditions described in section 4.2, we estimate any potentially liquefiable layers are located beneath a 30 to 40 foot non-liquefiable layer of clay. As such, it is our opinion that the risk of surface rupture due to liquefaction during a seismic event is probably low. However, the potential for liquefaction and liquefaction-induced ground settlement should be reassessed during a future design-level study with a site-specific exploration program.

5.1.4 Lateral Spreading

Lateral spreading is a failure within a nearly horizontal soil zone (possibly due to liquefaction) that causes the overlying soil mass to move toward a free face or down a gentle slope. Generally,

effects of lateral spreading are most significant at the free face or the crest of a slope and diminishes with distance from the slope.

A lined creek runs along the southwestern border of the site and the site is roughly 5 feet below the elevation of the site. In addition, the site appears to be approximately 2 to 3 feet higher than the 671 Berry Avenue property. Since the creek is lined, and any potentially liquefiable layers are located at a depths greater than the height of the creek and the slope bordering the 671 Berry Avenue property, it is our opinion that the potential for lateral spreading is low.

5.2 UNDOCUMENTED FILL

As discussed above, undocumented fill layers on nearby sites ranged from 1 to 7 feet, and may be present on the same order of magnitude within the subject site boundary. In addition, during our review of environmental documents, two underground storage tanks (USTs) were removed in 1992 and roughly 10 feet of soil was excavated in this area. In addition, 17 underground hydraulic lifts remain in place. All undocumented fill in these areas should be removed and recompacted as engineered fill.

5.3 EXPANSIVE SOILS

Expansive soils shrink and swell as a result of moisture changes. This can cause heaving and cracking of slabs-on-grade, pavements, and structures founded on shallow foundations. Atterberg Limits testing performed on samples collected in the upper five feet in nearby properties yielded plasticity indices ranging from 20 to 38, indicating a moderately high expansive potential of onsite soils. Laboratory testing and additional analysis to assess the expansion potential of near surface soils should be performed in the design-level study.

Successful construction on expansive soils requires special attention during grading. It is imperative to keep exposed soils moist by occasional sprinkling. If the soils dry, it is extremely difficult to remoisturize the soils (because of their clayey nature) without excavation, moisture conditioning, and recompaction.

Conventional grading operations, incorporating fill placement specifications tailored to the expansive characteristics of the soil, and use of a mat foundation (either post-tensioned or conventionally reinforced) are common, generally cost-effective measures to address the expansive potential of the foundation soils.

5.4 CORROSIVE SOIL

In general, soil samples from nearby sites were not found to be corrosive. Corrosivity testing was not performed as part of this preliminary study. Laboratory testing and analysis to assess the corrosivity potential of near surface soils should be performed in the design-level study. In general, soil samples are tested for redox potential, pH, resistivity, sulfide, soluble sulfate, and chloride ion concentrations to help determine corrosivity considerations for concrete and metal buried or in contact with soil.

5.5 CONCLUSION

Based upon this preliminary study, it is our opinion that the project site is suitable for the proposed development. Based on this preliminary geotechnical assessment, the potential geotechnical issues for the site are:

- Presence of potentially expansive soils.
- Presence of existing fill materials and buried structures or utilities.

A design-level geotechnical study should be performed as part of the design process, which would include test borings, test pits, and laboratory testing to provide data for preparation of specific recommendations regarding site grading, foundations, and drainage for the proposed single-family residential construction. The exploration will also allow for more detailed evaluations of the above-described geotechnical issues and afford the opportunity to provide techniques and procedures to be implemented during construction to mitigate potential geotechnical/geological hazards.

6.0 PRELIMINARY RECOMMENDATIONS

The following recommendations are for initial land planning and preliminary estimating and design purposes. Final recommendations regarding site grading and foundation construction will be provided after additional site-specific exploration has been undertaken.

6.1 DEMOLITION AND STRIPPING

Site demolition includes the removal of structures, foundations, and buried structures, including abandoned utilities, irrigation wells, storage tanks, septic tanks, and leach fields, if any exist. Near surface soft compressible soils and surficial debris should also be removed from locations to be graded, from areas to receive fill or structures, or those areas to serve as borrow. The depth of removal of such materials should be determined by the Geotechnical Engineer in the field at the time of grading.

The existing vegetation should be removed from areas to receive fill or improvements, or those areas to serve for borrow. Tree roots should be removed down to a depth of at least 3 feet below existing grade. Subject to approval by the landscape architect, strippings and organically contaminated soils can be used in landscape areas. Otherwise, such soils should be removed from the project site. Any topsoil that will be retained for future use in landscape areas should be stockpiled in areas where it will not interfere with grading operations.

All excavations from demolition and stripping below design grades should be cleaned to a firm undisturbed soil surface determined by the Geotechnical Engineer. This surface should then be scarified, moisture conditioned, and backfilled with compacted engineered fill. The requirements for backfill materials and placement operations are the same as for engineered fill. No loose or uncontrolled backfilling of depressions resulting from demolition or stripping is permitted.

6.2 SELECTION OF MATERIALS

With the exception of construction debris (wood, brick, asphalt, concrete, metal, etc.), trees, and high organic content soil (soil which contains more than 3 percent organic content by weight), we anticipate the site soils are suitable for use as engineered fill. Other materials and debris, including trees with their root balls, should be removed from the project site.

6.3 GRADED SLOPES

In general and for preliminary purposes, graded slopes should be no steeper than 2:1 (horizontal:vertical). Cut-fill transition slopes, if any, should be overexcavated and reconstructed as engineered fill slopes.

6.4 DIFFERENTIAL FILL THICKNESS

Depending upon cuts associated with the removal of undocumented fills, a differential fill thickness condition could possibly arise. For subexcavation activities that create a differential fill thickness across a building footprint, remedial grading to achieve a similar fill thickness across the pad is beneficial for the performance of a shallow foundation system. We recommend over-excavating the margin of subexcavation areas to limit the differential fill thickness to a maximum of 10 feet across each building footprint. As a minimum, the over-excavation area should extend 5 feet beyond the edges of the building footprint.

6.5 FILL PLACEMENT

For land planning and cost estimating purposes, the following compaction control requirements should be anticipated for general fill areas:

Test Procedures:	ASTM D-1557.
Required Moisture Content:	Not less than 3 percentage points above optimum moisture content.
Minimum Relative Compaction:	Not less than 90 percent.

Relative compaction refers to the in-place dry density of soil expressed as a percentage of the maximum dry density of the same material. Additional compaction requirements may need to be developed during our detailed exploration to address potentially expansive soil.

6.6 PRELIMINARY FOUNDATIONS CONSIDERATIONS

In order to reduce the effects of potentially expansive soils, the foundations should be sufficiently stiff to move as rigid units with minimum differential movements. This can be accomplished with construction of relatively rigid mat foundations, such as post-tensioned structural mats.

A minimum uniform mat thickness of 10 to 12 inches should be anticipated for preliminary purposes. We anticipate that structural mats constructed on swelling soils will move differentially; therefore, structural mats may require stiffening to reduce differential movements due to swelling/shrinkage to a value compatible with the type of structure that will be constructed.

6.7 CALIFORNIA BUILDING CODE

Based on the nearby subsurface conditions encountered and local seismic sources, the following 2010 CBC seismic design parameters should be used for design.

TABLE 6.7-1
2010 CBC Seismic Information

Parameter	Design Value
Site Class	D
Mapped MCE_R spectral response accelerations for short periods, S_S (g)	2.43
Mapped MCE_R spectral response accelerations for 1-second periods, S_1 (g)	1.01
Site Coefficient, F_A	1.00
Site Coefficient, F_V	1.50
MCE spectral response accelerations for short periods, S_{MS} (g)	2.43
MCE spectral response accelerations for 1-second periods, S_{M1} (g)	1.52
Design spectral response acceleration at short periods, S_{DS} (g)	1.62
Design spectral response acceleration at 1-second periods, S_{D1} (g)	1.01
Mapped MCE Geometric Mean Peak Ground Acceleration (g)	0.94
Site Coefficient, F_{PGA}	1.00
MCE Geometric Mean Peak Ground Acceleration, PGA_M (g)	0.94
Long period transition-period, T_L	8 sec

MCE_R = Risk-Targeted Maximum Considered Earthquake
MCE = Maximum Considered Earthquake
Latitude: 37.655169; Longitude: -122.071382

6.8 PRELIMINARY PAVEMENT DESIGN

As applicable, the following preliminary pavement section for new streets has been determined for a Traffic Index of 4 through 6, based on an assumed R-value of 5, and a minimum asphalt thickness of 4 inches, as required by the City of Hayward. The calculations were completed in accordance with the design methods contained in Topic 633 of Caltrans Highway Design Manual (including the asphalt factor of safety), presented in the table below.

TABLE 6.8-1
Preliminary Pavement Sections

Traffic Index	HMA (inches)	AB (inches)
4.0	4	4
5.0	4	7½
6.0	4	12

Note: HMA – Hot Mix Asphalt
AB – Caltrans Class 2 aggregate base (R-value of 78 or greater)

The above preliminary pavement sections are provided for estimating only. We recommend the actual subgrade material be tested for R-value once established and the Traffic Index should be confirmed by the Civil Engineer and City of Hayward.

6.9 SURFACE DRAINAGE

The building pads must be positively graded at all times to provide for rapid removal of surface water runoff from the foundation systems and to prevent ponding of water under floors or seepage toward the foundation systems at any time during or after construction. Ponding of stormwater must not be permitted on the building pads during prolonged periods of inclement weather. We suggest that finished grades have slopes of at least 5 percent within 10 feet from the exterior walls at right angles to them to allow surface water to drain positively away from the structures. For paved areas, the slope gradient can be reduced to 2 percent. All surface water should be collected and discharged into the storm drain system. Landscape mounds must not interfere with this requirement.

All roof stormwater should be collected and directed to downspouts. Stormwater from roof downspouts should not be allowed to discharge onto splashblocks or into landscape areas within 5 feet from the foundation; rather they should discharge through the curb and into the street or onto an impermeable material that drains into the street. ENGEO should be consulted to develop recommendations if these criteria are not feasible.

6.10 REQUIREMENTS FOR LANDSCAPING IRRIGATION

For planning purposes, vegetation should not be planted immediately adjacent to the structures. If planting adjacent to a building is desired, we recommend using plants that require very little moisture with drip irrigation systems. Similarly, sprinkler systems should not be installed where they may cause ponding or saturation of foundation soils within 5 feet of the walls or under the structures as ponding or saturation of foundation soils may cause loss of soil strength, and movements of the foundation and slabs.

Irrigation of landscaped areas should be strictly limited to what is necessary to sustain vegetation. Excessive irrigation could result in saturating and weakening of foundation soils.

6.11 STORMWATER INFILTRATION OPPORTUNITIES AND POST-CONSTRUCTION BMPS

Based on the soil classification on nearby sites, the near-surface site soils are expected to have low permeability values to handle stormwater infiltration. Post-construction BMPs should not rely on infiltration; rather, we recommend BMPs include subdrains that discharge treated stormwater into the planned storm drain system. If possible, we recommend bioswales/bioretention areas and other BMPs be planned a minimum of 5 feet away from structural site improvements.

7.0 DESIGN-LEVEL GEOTECHNICAL REPORT

This report presents geotechnical feasibility findings and considerations for the planned residential development. A design-level geotechnical exploration should be performed when development plans are finalized. The purpose of the design-level exploration is to further evaluate the presence of undocumented fill, expansive soils, compressible soils, potentially liquefiable soils, groundwater levels and other geotechnical hazards. Specific recommendations for site grading, ground improvement, and the design and construction of foundations and utilities should be included in the design-level geotechnical report.

8.0 LIMITATIONS AND UNIFORMITY OF CONDITIONS

This preliminary report is issued with the understanding that it is the responsibility of the owner to transmit the information and recommendations of this report to developers, owners, buyers, architects, engineers, and designers for the project so that the necessary adjustments can be made during conceptual design and preliminary planning. The conclusions and recommendations contained in this report are solely professional opinions and preliminary in nature.

The professional staff of ENGEO strives to perform its services in a proper and professional manner with reasonable care and competence but is not infallible. There are risks of earth movement and property damages inherent in land development. We are unable to eliminate all risks or provide insurance; therefore, we are unable to guarantee or warrant the results of our services.

This preliminary report is based upon a desk study which include subsurface information acquired by others. This document must not be subject to unauthorized reuse that is, reusing without written authorization of ENGEO. Such authorization is essential because it requires ENGEO to evaluate the document's applicability given new circumstances, not the least of which is passage of time. Actual field or other conditions will necessitate clarifications, adjustments, modifications or other changes to ENGEO's documents. Therefore, ENGEO must be engaged to prepare the necessary clarifications, adjustments, modifications or other changes before construction activities commence or further activity proceeds. If ENGEO's scope of services does not include on-study area construction observation, or if other persons or entities are retained to provide such services, ENGEO cannot be held responsible for any or all claims arising from or resulting from the performance of such services by other persons or entities, and

from any or all claims arising from or resulting from clarifications, adjustments, modifications, discrepancies or other changes necessary to reflect changed field or other conditions.

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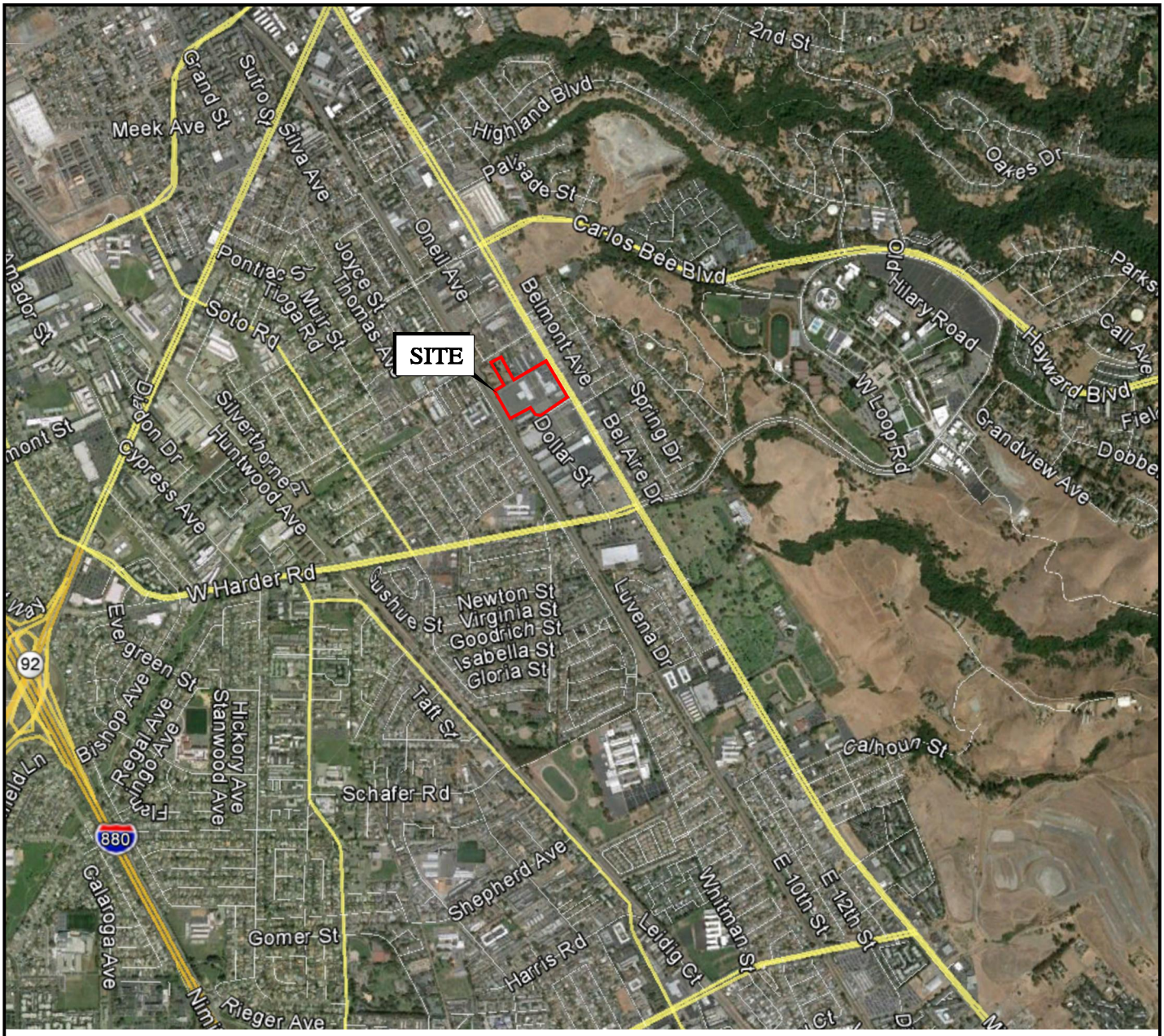
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BASE MAP SOURCE: GOOGLE EARTH PRO

ENGEO Expect Excellence

VICINITY MAP

FORMER HAYWARD FORD SITE

HAYWARD, CALIFORNIA

PROJECT NO.: 12288.000.000		FIGURE NO. 1
SCALE: AS SHOWN		
DRAWN BY: LL	CHECKED BY: BB	

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ORIGINAL FIGURE PRINTED IN COLOR

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N

0 FEET 150

0 METERS 75

BASE MAP SOURCE: GOOGLE EARTH PRO

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SITE PLAN

FORMER HAYWARD FORD SITE

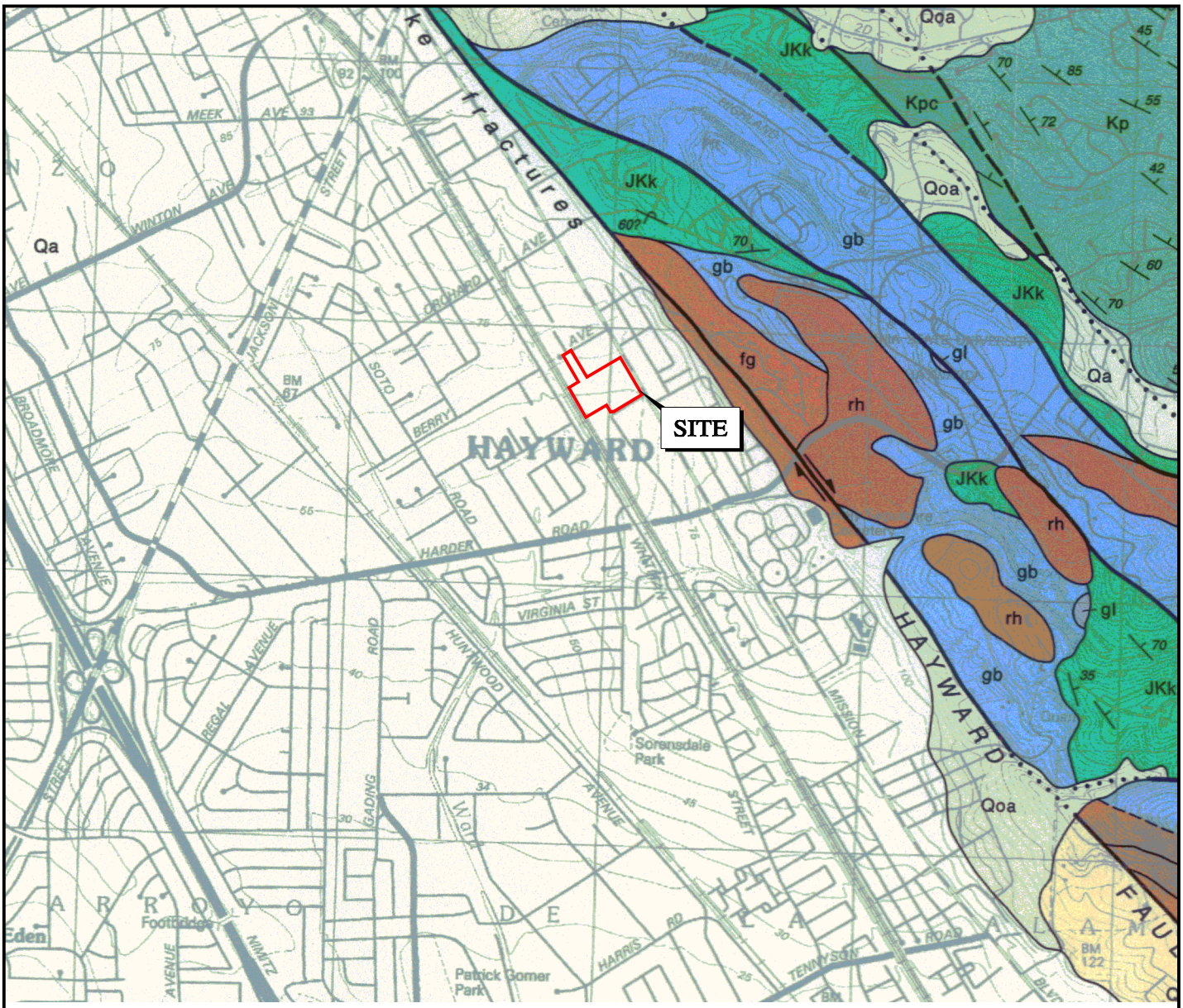
HAYWARD, CALIFORNIA

PROJECT NO.: 12288.000.000		FIGURE NO. 2
SCALE: AS SHOWN		
DRAWN BY: LL	CHECKED BY: BB	

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EXPLANATION

GEOLOGIC CONTACT-DASHED WHERE GRADATIONAL OR APPROXIMATELY LOCATED

FAULT-DASHED WHERE INFERRED, DOTTED WHERE CONCEALED, QUERIED WHERE EXISTENCE IS DOUBTFUL. SAWTEETH ARE ON UPPER PLATE OF LOW ANGLE THRUST FAULT.

STRIKE AND DIP OF STRATA

INCLINED

Qa	ALLUVIAL GRAVEL
Qls	LANDSLIDE RUBBLE
Qoa	OLDER SURFICIAL DEPOSITS
JKk	KNOXVILLE FORMATION CLAY SHALE
JKkc	KNOXVILLE FORMATION CONGLOMERATE
fg	GREENSTONE
gb	GABRO DIABASE

N

0 FEET 2000

0 METERS 1000

BASE MAP SOURCE: DIBBLEE, 2005

ENGEO Expect Excellence

REGIONAL GEOLOGIC MAP

FORMER HAYWARD FORD SITE

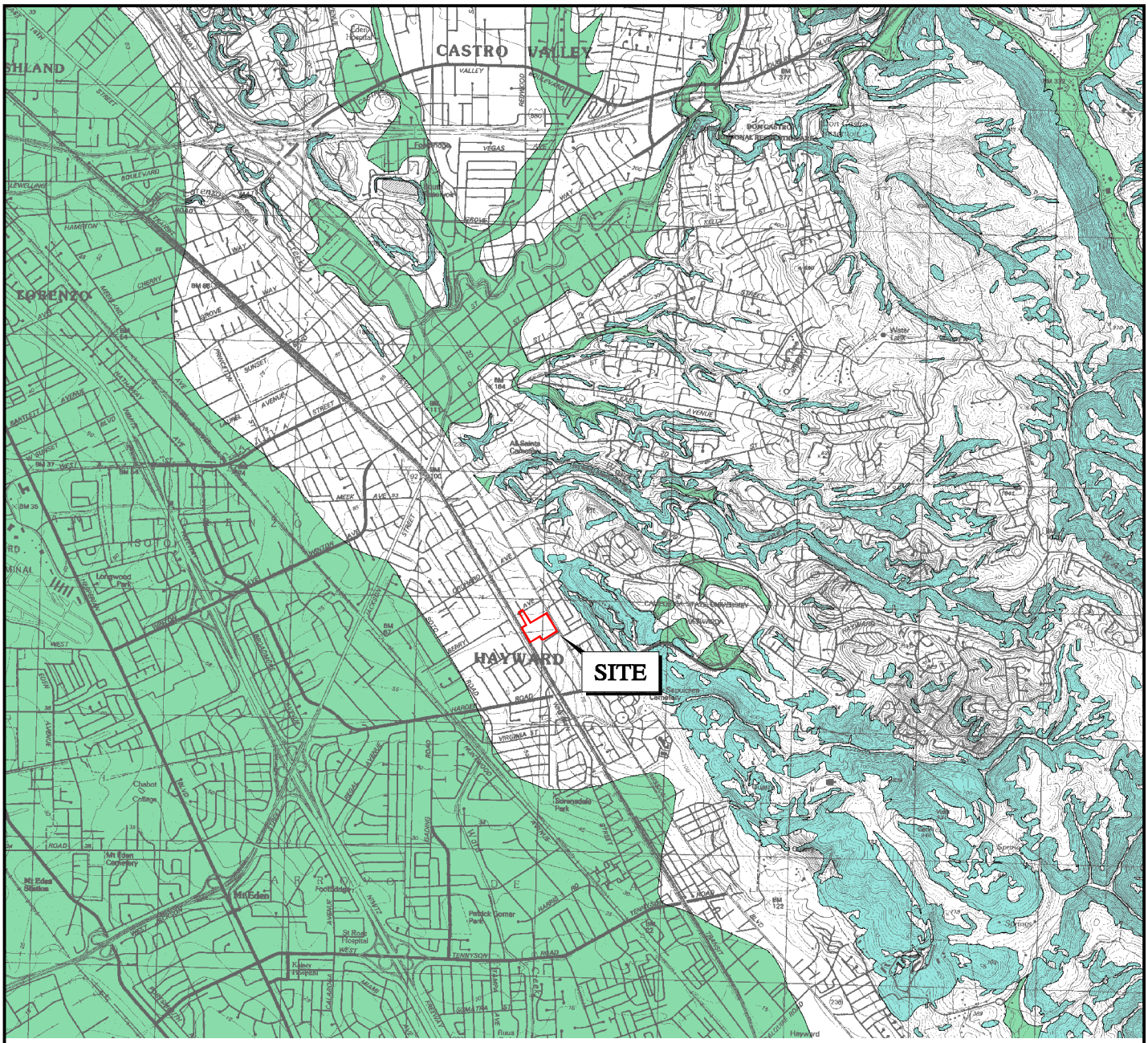
HAYWARD, CALIFORNIA

PROJECT NO.: 12288.000.000		FIGURE NO. 3
SCALE: AS SHOWN		
DRAWN BY: LL	CHECKED BY: BB	

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EXPLANATION

LIQUEFACTION

AREAS WHERE HISTORIC OCCURRENCE OF LIQUEFACTION, OR LOCAL GEOLOGICAL, GEOTECHNICAL AND GROUNDWATER CONDITIONS INDICATE A POTENTIAL FOR PERMANENT GROUND DISPLACEMENTS SUCH THAT MITIGATION AS DEFINED IN PUBLIC RESOURCES CODE SECTION 2693(c) WOULD BE REQUIRED

EARTHQUAKE-INDUCED LANDSLIDES

AREAS WHERE PREVIOUS OCCURRENCE OF LANDSLIDE MOVEMENT, OR LOCAL TOPOGRAPHIC, GEOLOGICAL, GEOTECHNICAL AND SUBSURFACE WATER CONDITIONS INDICATE A POTENTIAL FOR PERMANENT GROUND DISPLACEMENTS SUCH THAT MITIGATION AS DEFINED IN PUBLIC RESOURCES CODE SECTION 2693(c) WOULD BE REQUIRED

BASE MAP SOURCE: CALIFORNIA DEPARTMENT OF CONSERVATION, CALIFORNIA GEOLOGICAL SURVEY, 2006

ENGEO Expect Excellence

SEISMIC HAZARD ZONES MAP

FORMER HAYWARD FORD SITE

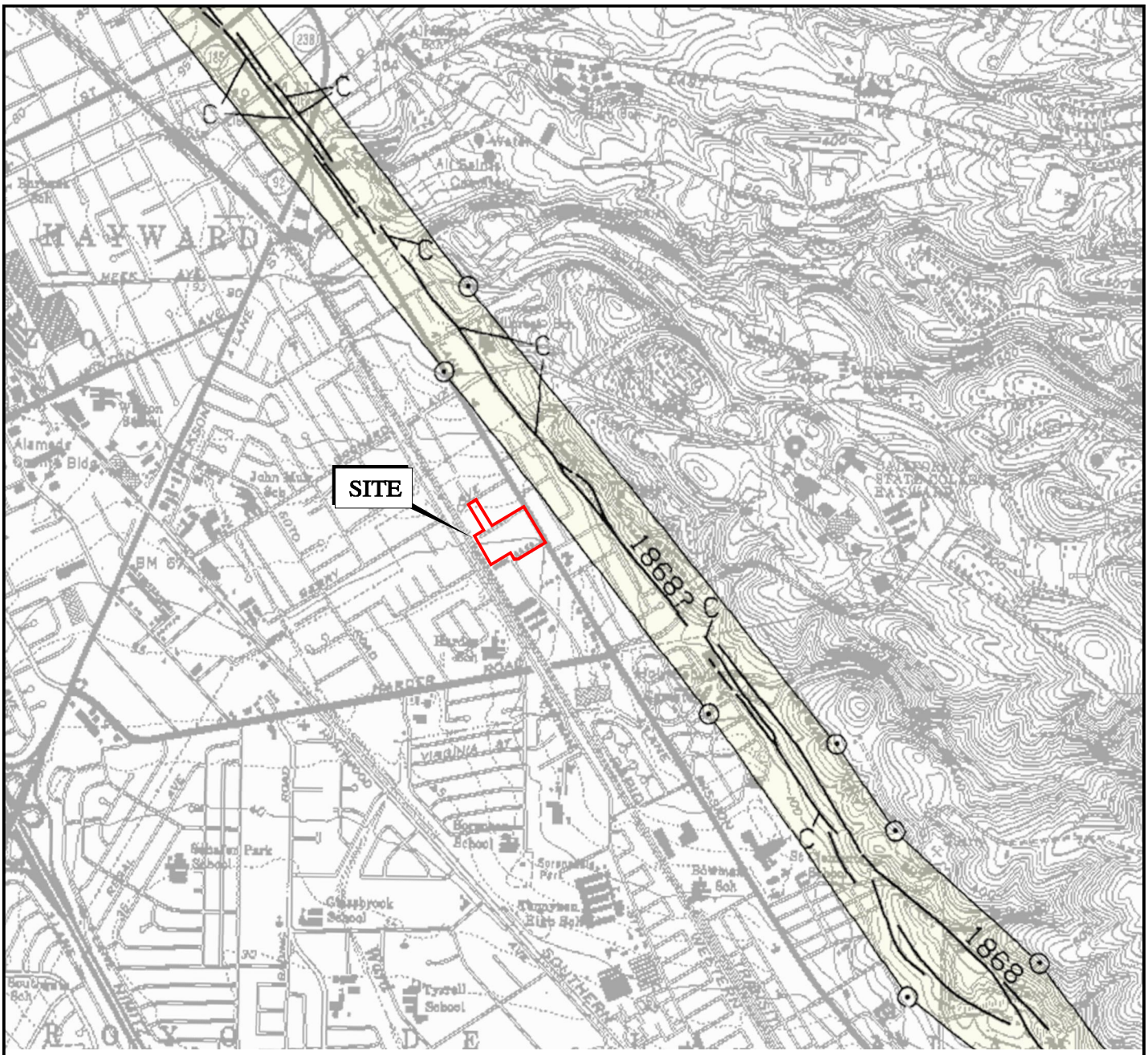
HAYWARD, CALIFORNIA

PROJECT NO.: 12288.000.000		FIGURE NO. 4
SCALE: AS SHOWN		
DRAWN BY: LL	CHECKED BY: BB	

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ORIGINAL FIGURE PRINTED IN COLOR

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EXPLANATION

1906 C
?

FAULTS CONSIDERED TO HAVE BEEN ACTIVE DURING HOLOCENE TIME AND TO HAVE A RELATIVELY HIGH POTENTIAL FOR SURFACE RUPTURE; SOLID LINE WHERE ACCURATELY LOCATED, LONG DASH WHERE APPROXIMATELY LOCATED, SHORT DASH WHERE INFERRED, DOTTED WHERE CONCEALED; QUERY (?) INDICATES ADDITIONAL UNCERTAINTY. EVIDENCE OF HISTORIC OFFSET INDICATED BY YEAR OF EARTHQUAKE-ASSOCIATED EVENT OR C FOR DISPLACEMENT CAUSED BY CREEP OR POSSIBLE CREEP

EARTHQUAKE FAULT ZONE BOUNDARIES; DELINEATED AS STRAIGHT-LINE SEGMENTS THAT CONNECT ENCIRCLED TURNING POINTS SO AS TO DEFINE EARTHQUAKE FAULT ZONE SEGMENTS

N

0 FEET 2000
0 METERS 1000

BASE MAP SOURCE: CDMG, 1993

ENGEO Expect Excellence

EARTHQUAKE FAULT ZONE MAP

FORMER HAYWARD FORD SITE

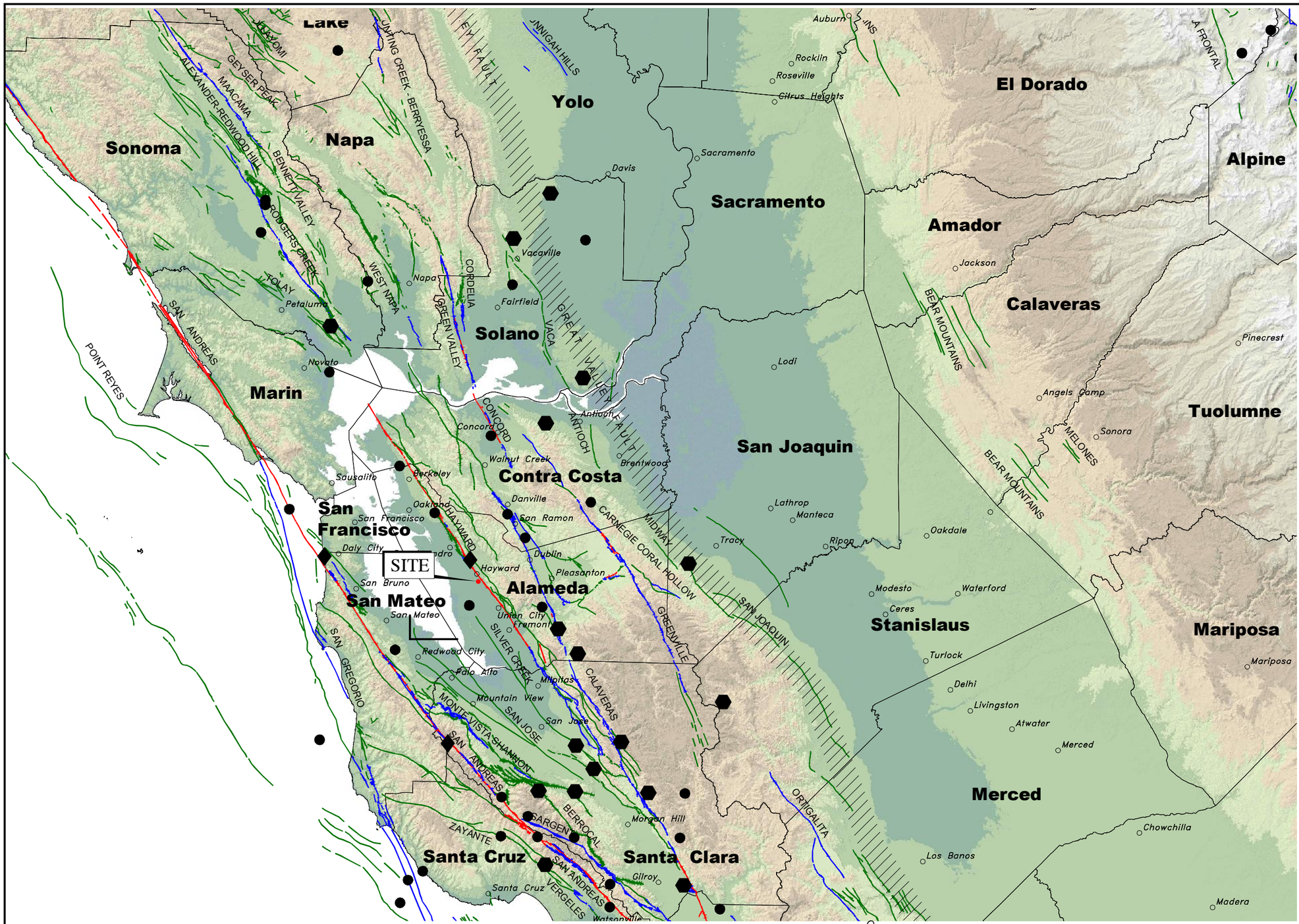
HAYWARD, CALIFORNIA

PROJECT NO.: 12288.000.000			FIGURE NO. 5
SCALE: AS SHOWN			
DRAWN BY: LL	CHECKED BY: BB		

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ORIGINAL FIGURE PRINTED IN COLOR

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BASE MAP SOURCE:
COLOR HILLSHADE IMAGE BASED ON THE NATIONAL ELEVATION DATASET (NED) AT 30 METER RESOLUTION
U.S.G.S. QUATERNARY FAULT DATABASE, NOVEMBER, 2010
U.S.G.S. HISTORIC EARTHQUAKE DATABASE (1800–2000)

ENGEO Expect Excellence

REGIONAL FAULTING AND SEISMICITY

FORMER HAYWARD FORD SITE
HAYWARD, CALIFORNIA

PROJECT NO.: 12288.000.000			FIGURE NO 6
SCALE: AS SHOWN			
DRAWN BY: LL	CHECKED BY: BB		

ORIGINAL FIGURE PRINTED IN COLOR

G:\Drafting\DRAFTING2_Dwg_10000 to 12999\12288\000\GEX\12288000000-GEX-6-regionalFaultingSeismicity-0915.dwg Plot Date: 9-11-15 llee

APPENDIX E

Environmental Site Assessments

Phase I Environmental Site Assessment
Hayward Ford
25501 - 25551 Mission Boulevard, Hayward, California 94544

CONFIDENTIAL AND PRIVILEGED - ATTORNEY WORK PRODUCT

Phase I Environmental Site Assessment
Hayward Ford
25501 - 25551 Mission Boulevard, Hayward, California 94544

Prepared for:

Legal Department of AutoNation, Inc.
110 Southeast 6th Street
Fort Lauderdale, Florida 33301

Prepared by:

Applied Environmental Technologies, Inc.
4561 Market Street, Suite B
Ventura California 93003
(805) 650-1400

Ref. No. 0876-88P

April 30, 2008

APPLIED ENVIRONMENTAL TECHNOLOGIES INC.
4561 Market St , Suite B • Ventura, CA 93003 • Phone: (805) 650-1400 Fax: (805) 650-1576

CONFIDENTIAL AND PRIVILEGED - ATTORNEY WORK PRODUCT

Phase I Environmental Site Assessment
Hayward Ford
25501 - 25551 Mission Boulevard, Hayward, California 94544

Prepared by:

Applied Environmental Technologies, Inc.
4561 Market Street, Suite B
Ventura California 93003
(805) 650-1400

Wallace A. Jensky, II, PG, REA
Principal Geologist

Registered Environmental Assessor I
WALLACE A. JENSKY, II
No. 01600
Expires: 6/09
STATE OF CALIFORNIA

Ref. No. 0876-88P

April 30, 2008

EXECUTIVE SUMMARY

This report provides the results of a Phase I Environmental Site Assessment (ESA) performed by Applied Environmental Technologies, Inc., (AET) for the Legal Department of AutoNation, Inc. (AutoNation) of an approximate 7.4-acre parcel of land and an adjacent approximate 1.3-acre parcel of land developed with four buildings recently vacated by Hayward Ford (both parcels together are the Site). The 7.4-acre parcel with three buildings is located at 25501 Mission Boulevard, Hayward, California, and the adjacent 1.3-acre parcel with one showroom building is located at 25551 Mission Boulevard.

The objective of the Phase I ESA is to identify recognized environmental conditions at the Site in accordance with the scope of work contained in the American Society for Testing and Materials (ASTM) Designation E 1527-05, that constitutes the standard for All Appropriate Inquiry (AAI).

The Site is identified in the EDR government database report as Ed Chandler Ford Inc. (former tenant) and Hayward Ford (current tenant) and is listed on the Integrated Compliance Information System (ICIS) List for a violation of the Clean Air Act; on the HAZNET, FINDS, and RCRA-SQG Lists as a small quantity generator of hazardous wastes; on the CA FID UST and SWEEPS UST Lists as having registered underground storage tanks (USTs). The Site is also listed on the LUST and Cortese Lists as a leaking UST Site. The leak was reported in 1992 during removal of a UST. The Site is not located within 1.0 mile of a federal Superfund property. There is a low probability that the other listed properties in the Site vicinity have impacted the Site because of either/or their regulatory status (case closed or responsible party identified and assessment underway), their down- or cross-gradient locations, and/or their distances from the Site.

The LUST case has not been closed by the regulatory agency, the Hayward Fire Department (HFD). AET reviewed the case file for the Site at the HFD. Based on the file review, a release of petroleum hydrocarbons has impacted the soil and groundwater beneath the two former fuel USTs removed in 1992. There are three groundwater-monitoring wells at the Site. Documents were reviewed concerning the removal of a used-oil UST in 1986, and a separate release of petroleum hydrocarbons from a former in-ground hydraulic lift that impacted the soil in the main service building. The impacted soil at the lift was excavated in 1990.

Based on historical aerial photographs, topographic maps, and city building department permits, three of the current buildings on the Site were constructed in 1964, and the fourth was constructed in 1985. Prior to development as an automobile dealership, the Site was used variously for row-crop agriculture, orchards, and small residential dwellings (possibly farm labor housing).

No environmental liens or other activity and use limitations (AULs) were found for the Site.

On February 20, 2008, AET personnel visited the Site to observe current conditions. The Site was developed with four buildings: a large building that had the showroom, sales and business offices, the parts department, a boutique, and a customer lounge; a second showroom building with sales offices; and two service buildings (one of which is identified at the detail shop). The remainder of the Site had perimeter landscaping and asphalt-paved parking lots for new vehicle display and

customer parking. The showrooms, parts department, customer lounge, business and sales offices, parking lots, and parking structure were environmentally unremarkable.

The main T-shaped service building had 40 service bays, restrooms with employee lockers, a lunchroom, and a tool storage room. Seventeen of the 40 bays had in-ground hydraulic lifts of which sixteen were abandoned in-place. Above ground lifts were installed in most of the bays. Four above ground storage tanks (ASTs) for new oil and new automatic transmission fluid were observed in the service building. A hot parts washer and two aqueous parts washers were located in the service area. No significant staining was observed on the concrete floor around the ASTs and parts washers. A 500-gallon steel used oil AST and a 180-gallon plastic used coolant AST were observed on the exterior of the building along the south wall of the west wing. A clarifier for a number of floor drains in the service area was located outside the building in front of the main entrance. The smaller service building (detail shop), located north of the showroom building, had eleven bays including a two-bay wash rack. Seven bays had in-ground hydraulic lifts of which five were abandoned in-place. The wash rack bays also had a clarifier. Two approximate 120-gallon steel ASTs and one aqueous parts-washer were observed in the building. No significant staining was observed on the concrete floor around the ASTs and parts washer. According to Hayward Ford personnel, the ASTs, the above ground lifts, and other service equipment will be moved to the new location, or will be sold.

No current USTs were observed at the Site. Three groundwater-monitoring wells were observed: two near the former diesel and gasoline USTs; and one in the main service building located near the former lift excavation.

No recognized environmental conditions were observed from the Site or from the public right-of-way on the adjacent properties.

Areas of potential concern at the Site include the storage and use of petroleum products and the storage and disposal of petroleum and hazardous wastes, the presence of two clarifiers, the presence of three active and 21 out-of-service abandoned in-ground hydraulic lifts, the presence of three groundwater-monitoring wells, and the presence of three former USTs. The recent Site occupant was observed to have handled petroleum products appropriately and to have generated and properly disposed of wastes; however, the activities of past occupants cannot be documented. It is not known if the abandoned in-place lifts and/or the used oil UST had leaked; however, the former gasoline and diesel USTs did leak and the Site is identified as an open LUST case with the HFD.

Based on the information reviewed and summarized, it is AET's professional opinion that this assessment has revealed no evidence of recognized environmental conditions, as previously defined, at the Site except for the previously identified impacted soil and groundwater at the former gasoline and diesel USTs (open LUST case at the HFD).

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2 - Site Plan
3 – Detail of Main Service Building
4 – Plan of the Detail Building

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A Representative Photographs
B EDR-Radius Map Report
C Hayward Fire Department Records
D Aerial Photographs from 1998, 1965, and 1958
E Environmental Lien Search Report
F Waste Disposal Documentation
G Curriculum Vitae of the Environmental Professional

1.0 INTRODUCTION

This report provides the results of a Phase I Environmental Site Assessment (ESA) performed by Applied Environmental Technologies, Inc., (AET) for the Legal Department of AutoNation, Inc. (AutoNation) of two parcels of land totaling approximately 8.7-acres developed with four buildings recently vacated by Hayward Ford (Site, Plate 1). The main Site parcel (7.4-acres) is located at 25501 Mission Boulevard, Hayward, California, and has three buildings and paved parking lots. Adjacent to the south of the main parcel is a 1.3-acre parcel at 25551 Mission Boulevard with one showroom building and a parking lot. The Site is located on the west side of Mission Boulevard. To the north are a used car lot, an auto-body shop, and an apartment complex. To the south is Torrano Avenue with another automobile dealership further south. To the west is the Bay Area Rapid Transit (BART) railroad right-of-way.

The objective of the Phase I ESA is to identify recognized environmental conditions at the Site in accordance with the scope of work contained in the American Society for Testing and Materials (ASTM) Designation E 1527-05, that constitutes the standard for All Appropriate Inquiry (AAI). As defined, recognized environmental conditions include "the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include de minimis conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate government agencies. Conditions determined to be de minimis are not recognized environmental conditions."

The ESA was performed in accordance with the scope of work provided in AET's proposal dated February 11, 2008, and with the ASTM scope of work for Phase I Environmental Site Assessments - E 1527-05. In general, the investigation included a review of current federal, state and county databases of known and potential environmentally impacted properties, a review of available city and county records, a review of available historical aerial photographs and historical maps, interviews with persons familiar with the Site, a review of an environmental lien search report, and a Site reconnaissance to observe present conditions. Interviews were conducted with current managers and employees of the current occupants of the Site with relevant knowledge of the uses and physical characteristics of the Site. Prior occupants were not available; however, past Site tenants and Site uses have been identified and are discussed in other sections of this report. There were no significant data gaps encountered during the assessment.

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in 40 CFR Part 312.10. I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

2.0 SITE DESCRIPTION

The Site consists of an approximately 8.7 acres of land developed with four buildings and paved parking lots recently vacated by Hayward Ford (Plate 2). Access to the Site is from Mission Boulevard with additional access from Torrano Avenue. The Site consists of two parcels of land. The main 7.4-acre parcel at 25501 Mission Boulevard is developed with three buildings. The building located in the southeast portion of the parcel had the Ford showroom, a boutique area, customer lounge, business and sales offices, and the parts department with a mezzanine for additional storage. The service department occupied the other two buildings, the northeast detail building (north and across the service driveway from the showroom building), and the main T-shaped service building in the central portion of the Site. South of the main parcel was the adjacent 1.3-acre parcel at 25551 Mission Boulevard that had one vacant building with offices and was last used as a Lincoln/Mercury showroom. The remainder of the Site (both parcels) has paved parking lots with perimeter landscaping. The Site is located on the west side of Mission Boulevard and is bound on the north by a used car lot, an auto-body shop, and an apartment complex; on the south by Torrano Avenue followed by a Dodge dealership across the Avenue; on the west by the BART railroad right-of-way; and on the east by Mission Boulevard with commercial properties across the Boulevard. Photographs showing the current development of the Site and vicinity are provided in Attachment A.

2.1 Physiographic Description

The Site is located in the north central Coast Ranges Geomorphic Province of California on the East Bay Plain, an elongated northwest trending alluvial plain along the east flank of the San Francisco Bay. The Hayward Fault bounds the plain to the northeast with hills and mountains of the Diablo Range further east. The Site elevation is approximately 60 feet above mean sea level (msl). Regional topography slopes down to the west toward the San Francisco Bay. Topography in the Site vicinity slopes down towards the south-southwest at approximately 40 feet per mile.

2.2 Geology/Hydrogeology

Alluvial fan deposits derived from the Diablo Range to the east underlie the Site. The late Cenozoic age alluvium consists of interbedded deposits of silty clay, gravelly clay, and sandy clay with discontinuous lenses of silty sand. The Site is located north of the Niles Cone Groundwater Basin, a local source of drinking water. The depth to shallow groundwater beneath the Site is approximately 32 feet as reportedly measured in three on-Site monitoring wells. Saltwater intrusion from San Francisco Bay (and from salt ponds along the east shore of the Bay) has occurred in several aquifers beneath the East Bay Plain.

3.0 INVESTIGATION METHODOLOGY AND FINDINGS

AET reviewed available reports, maps, photographs, databases, and permits regarding the history and development of the Site, and performed a reconnaissance of the Site and Site vicinity.

3.1 Federal and State Database Review

A government database report, prepared by Environmental Data Resources (EDR) of Milford, Connecticut of available federal, state and county agency databases was reviewed to identify government regulated properties having known recognized environmental conditions and potential environmental concerns within the vicinity of the Site. The radii of investigation for the Federal and State agency lists were selected in accordance with the ASTM Standards. The government databases reviewed are described in detail in the EDR report. Also included in the EDR report are maps illustrating the location of listed properties relative to the location of the Site. A complete copy of the EDR report, dated February 13, 2008, is provided in Attachment B.

A summary of properties that could not be mapped by EDR but were identified as being potentially within the Site vicinity (orphan properties) is also included in the EDR report. Of the listed unmappable properties, none are identifiable as being in the immediate Site vicinity. The pertinent findings of the government database review are summarized as follows:

The Site is identified in the EDR report as Ed Chandler Ford Inc. (former tenant) and Hayward Ford (current tenant) and is listed on the following: the Integrated Compliance Information System (ICIS) List for a violation of the Clean Air Act; on the HAZNET, FINDS, and RCRA-SQG Lists as a small quantity generator of hazardous wastes; on the CA FID UST and SWEEPS UST Lists as having registered USTs for unleaded gasoline and diesel fuel; and on the HIST UST List for three historical USTs installed at the Site in 1963, including a used oil UST. Being a registered generator of hazardous or industrial wastes, or having a registered or historical UST, does not indicate that a release has occurred on the Site. The Site is also listed on the LUST and Cortese Lists as a leaking UST Site. According to the database, a release was reported in 1992 during removal of a UST and the leak was confirmed in 1996. The LUST case has not been closed by the regulatory agency (Hayward Fire Department).

The Site is not located within 1.0 mile of a federal Superfund property.

There are 11 listings for properties within 0.25 mile of the Site on the RCRA-SQG Lists as generators of small quantities of hazardous wastes. Most of the properties are automobile dealerships located along Mission Boulevard, except for three auto body shops. Being a generator of hazardous waste does not indicate that a release has occurred on the property.

There are up to 7 listings for properties within 0.25 mile of the Site on UST, SWEEPS UST, CA-FID, and/or HIST UST Lists with registered or historical USTs. The presence of a historical or registered UST does not indicate that a release has occurred on the property.

There are up to 13 listings for properties within 0.5 mile of the Site on the LUST and Cortese Lists. Six of the LUST properties are listed as case closed. The remaining open LUST cases include: Hayward Dodge (25601 Mission Boulevard) located south of the Site across Torrano; Hayward Nissan (25995 Mission Boulevard) located south of the Dodge dealership; and Hayward Toyota (24773 Mission Boulevard) located 0.5 mile north of the Site. The statuses of the open cases are listed as either preliminary site assessment underway or post remediation monitoring.

Based on the database review, the Site is identified on the LUST List. The LUST case has not been closed by the regulatory agency (Hayward Fire Department), and as such, the leak case is a recognized environmental condition (see Section 3.3). There is a low probability that the other listed properties have impacted the Site because of either/or their regulatory status (case closed or responsible party identified and assessment underway), their down- or cross-gradient locations, and/or their distances from the Site.

3.2 Oil and Gas Development

The Munger Map Book of California-Alaska Oil and Gas Fields, 2003 Edition, was reviewed to assess the presence of known active or abandoned oil and gas wells within the Site vicinity. The Site is not within the boundary of a designated oil field and no oil or gas well was identified within four miles of the Site vicinity. The Site has therefore not been impacted by oil and gas production.

3.3 Agency Records Review

AET reviewed records at the Hayward Building Department and at the Hayward Fire Department for information concerning the Site.

3.3.1 Hayward Building Department

The City of Hayward Building Department maintains building permits for the Site. The first document for 25501 Mission Boulevard was a September 19, 1963 topographic map of the Site showing three small structures on the eastern portion of the Site near Mission Boulevard. A permit application and approved building plans were dated February 4, 1964, for the three buildings currently on the Site. A 1997 permit for roof repair identified Hayward Ford as the Site owner. The first document for 25551 Mission Boulevard (1.3-acre portion of the Site) was a 1949 permit to add a garage to a dwelling. A sign permit dated 1971 for Cooper Motors and Aloha Motors did not indicate any structures on the Site. An application for a building permit and plans for an Auto Showroom and Sales Facility were dated April 4, 1985. No service building was located on the 1.3-acre Site. A Certificate of Occupancy was issued for the building in 1985. In 1986 a sign permit was issued to City Nissan, and in 1991 a sign permit was issued to Hayward Chrysler Plymouth Hyundai.

Based on the building permits reviewed, the Site had several small structures (possibly dwellings) prior to 1964 when the three buildings on the main 7.4-acre parcel were constructed. The

small 1.3-acre parcel had at least one dwelling in 1949, was possibly a paved car lot in 1971, and the current showroom building was constructed in 1985.

3.3.2 Hayward Fire Department

The City of Hayward Fire Department (HFD) provides regulatory oversight for leaking USTs and hazardous materials releases in the City. AET reviewed the files for the Site and the information obtained is summarized below.

Former Underground Storage Tanks

Three USTs were historically present at the Site: a 1,000-gallon used-oil UST that was removed in 1986, and two 2,000-gallon fuel USTs (one for diesel and one for gasoline) that were removed in 1992. The former 1,000-gallon used-oil UST was located in the asphalt parking area between the Main Service Building and the Detail building (Plate 2). In 1986, two proposed monitoring wells were to be installed as part of the UST monitoring requirements in effect at that time, one at the used oil UST and one at the fuel USTs. During drilling at the used oil UST, field evidence of impacted soil (visibly stained soil) was observed and the well was not installed. The well at the fuel USTs was installed in 1986. Groundwater was encountered at approximately 32 feet below ground surface (bgs) in the well. In 1986, the used oil UST was removed; however, there is no documentation that soil samples were collected during the removal. No additional assessment (soil borings or groundwater wells) has been performed near the former used oil UST.

The two former fuel USTs were located outside southwest corner of the Detail Building (Plate 2). The two USTs were removed in October 1992 (one 2,000-gallon gasoline UST and one 2,000-gallon diesel UST). Four soil samples were collected from the beneath the tanks: two samples beneath the gasoline UST (G-1-10' and G-2-10') and two samples beneath the diesel UST (D-1-10' and D-2-10'). The four soil samples were analyzed for Total Petroleum Hydrocarbons as gasoline or diesel (TPHg or TPHd) using modified EPA Test Method 8015, and for benzene, toluene, ethylbenzene, and xylenes (BTEX) using EPA Test Method 8020.

Sample G-1-10' did not contain any petroleum hydrocarbons. Sample G-2-10' contained TPHg at 2.0 milligrams per kilogram (mg/kg), toluene at 6.6 micrograms per kilogram (µg/kg), ethylbenzene at 26 µg/kg, and xylenes at 30 µg/kg. Sample D-1-10' contained TPHd at 130 mg/kg, ethylbenzene at 8.1 µg/kg, and xylenes at 94 µg/kg. Sample D-2-10' contained TPHd at 13 mg/kg, ethylbenzene at 5.3 µg/kg, and xylenes at 30 µg/kg.

In January 1993, five soil borings (B-1 through B-5) and one groundwater well (STMW-1) were drilled near the former fuel tank cluster. During drilling, soil samples were collected at depths of 5, 10, 15, 20, 25, and 30 feet from Borings B-1 through B-5 and from well STMW-1. A plate showing the locations of the former USTs, the soil borings, and monitoring wells; and Tables of tabulated soil analytical data from Borings B-1 through B-5 and STMW-1 and groundwater data from monitoring wells MW-3, MW-2 and STMW-1 are provided in Attachment C.

As shown on the Tables in Attachment C, low concentrations of petroleum hydrocarbons were detected in capillary fringe soil at depths of 25 to 30 feet at B-1, B-2, B-3, and STMW-1. No impacted groundwater was detected at STMW-1 or MW-2 (near the former lift in the main service building; however, MW-3 located next to the former fuel USTs contained TPHg at 7,400 milligrams per liter (mg/L), TPHd at 14,000 mg/L, and individual BTEX at concentrations ranging from 4.5 to 44 mg/L. There was no additional information concerning the impacted soil and groundwater at the former USTs in the HFD file.

Soil Excavation at One In-ground Lift Removed in 1990

In July and August 1990, one in-ground hydraulic lift was removed from one of the bays in the Main Service Building (Plate 3, Bay 28). According to an Alameda County Environmental Health Division (ACEHD) Inspection report (contained in the HFD file), there was visible staining in the bottom of the hole following the lift removal. A soil sample at a depth of 16.75 feet bgs contained Oil & Grease (EPA Test Method 413.2) at 9,000 mg/kg. Clean and impacted soil was reportedly excavated in October 1990 and temporarily stockpiled onsite. The final dimension of the excavation was reported to be 25 feet wide by 35 feet long by 35 feet deep (near the top of the groundwater surface). The excavated soil was stockpiled on the asphalt parking lot west of the building. A combination of rock and Class II base material was used to backfill the excavation.

In February 1991, stockpile soil samples were collected and analyzed for Total Recoverable Petroleum Hydrocarbons (TRPH) using EPA Test Method 418.1 and for halogenated volatile organic compounds (HVOCs) using EPA Test Method 8010. TRPH ranged from 300 to 500 mg/kg and no halogenated compounds were detected. Clean stockpiled soil was reportedly transported to a landfill (West Winton) and impacted stockpiled soil was transported to a facility in Novato, CA.

A groundwater well (MW-2) was installed next to the lift excavation in accordance with a May 21, 1991 Workplan submitted to ACEHD. December 1992 groundwater analytical results from well MW-2 showed no impacted groundwater (no TPHg, TPHd, and no BTEX). Groundwater samples collected from MW-2 in March and December 1997 were analyzed for TRPH only and no TRPH was detected during either sampling event.

Based on the file review, a release of petroleum hydrocarbons has impacted the soil and groundwater beneath the two former fuel USTs. Impacted soil was excavated at a former in-ground lift in Bay 28 of the main service building in 1990.

3.4 Topographic Map and Aerial Photograph Review

Copies of historical topographic maps for the years 1899, 1948, 1959 1968 1973 and 1980, and aerial photographs for the years 1939, 1946, 1958, 1965, 1982, 1993, and 1998 available through EDR, were reviewed by AET for historical land use identification. Sanborn Fire Insurance Maps were not made for the area. Based on the review of available topographic maps and aerial photographs, the historical development of the Site and vicinity was evaluated and is summarized below.

The 1899 topographic map (Hayward, 15-Minute Quadrangle, 1:62500) shows the downtown area of Hayward to be developed adjacent to the mountain front at the mouth of Castro Valley approximately 1.5 miles north-northwest of the Site. Most of the main roads are present on the East Bay Plain including: Mission Boulevard (east of the Site); Jackson Street (Highway 92) west of the Site; and Harder Road south of the Site. There is no development on the Plain except for scattered structures along the various roads. Two railroad right-of-ways are present west of the Site. There are no structures on the Site or in the immediate Site vicinity.

The 1948 topographic map (Hayward, 15-Minute Quadrangle, 1:62500) shows the eastern portion of the Site along Mission Boulevard to be developed with small structures (dwellings) with vacant land to the west. Orchards are present southwest of the Site, across a third railroad right-of-way immediately adjacent to the west of the Site. The City of Hayward has developed west and north from the original downtown area. The Holy Sepulcher Cemetery is present on the southeast corner of Mission Boulevard and Harder Road 0.2 mile southeast of the Site.

The 1959 topographic map (Hayward, 7.5-Minute Quadrangle, 1:24000) shows little change to the Site and immediate Site vicinity. Orchards are present east of the Site, across Mission Boulevard and on the western portion of the Site, along the railroad right-of-way. Significant development has occurred on the East Bay Plain, north and west of the Site.

The 1968, 1973, and 1980 topographic maps (Hayward, 7.5-Minute Quadrangle, 1:24000) show Site and Site vicinity in a pink color indicating urban development. No individual structures are shown.

Based on the topographic maps, the Site was undeveloped land from prior to 1899 through 1948 when orchards or small dwellings were present on the Site. The Site and vicinity were shown in a pink color indicating urban development from 1968 through 1980. No unusual features, such as pits, excavations, or significant fills were observed on the topographic maps in the Site vicinity.

The 1939 aerial photograph (Fairchild, 1" = 555') shows the Site to be used for agriculture. Several small structures are present on the eastern portion of the Site (possible dwellings). The Site and the land to the north and south are divided into approximate 5 and 10 acre parcels that appear to have row crops located on the land west of the structures. Orchards are present in the Site vicinity. The main roads are present.

The 1946 aerial photograph (Jack Ammann, 1" = 655') shows the Site and the Site vicinity to be little changed since the 1939 photograph.

The 1958 aerial photograph (Cartwright, 1" = 555') shows a row of small structures (apparent dwellings) to be present on the southern parcel of the Site (north side of the current Torrano Avenue). A portion of the main parcel is an orchard. Significant residential

development has occurred north, west, and south of the Site vicinity. The properties adjacent to the Site remain in agricultural use.

The 1965 aerial photograph (Cartwright, 1" = 333') shows the main portion of the Site to be developed with the current three buildings (automobile dealership). The row of dwellings remains on the 1.3-acre southern parcel of the Site. The land in the Site vicinity is almost completely developed, except for the land south of the Site.

The 1982 aerial photograph (WSA, 1" = 690') shows the Site to be little changed since the 1965 photograph, except the 1.3-acre portion of the Site is now a parking lot, possibly the Cooper Motors and Aloha Motors car lot identified in the building permits (Section 3.3.1). Torrano Avenue is present south of the Site. Another automobile dealership is located south of Torrano Avenue.

The 1993 aerial photograph (USGS, 1" = 666') shows the main portion of the Site to be little changed since the 1982 photograph. The 1.3-acre portion of the Site has the current rectangular building and parking lot.

The 1998 aerial photograph (USGS, 1"= 666') show the Site and Site vicinity to be little changed since the 1993 photograph.

Based on the historic aerial photographs, the Site had several dwellings and was used for agriculture from prior to 1939 through 1958. There is a probability that the former dwelling had septic systems; however, it is likely that the septic systems were removed prior to the current development of the Site. The main portion of the Site was developed with the three current buildings used as an automobile dealership by 1965. The entire Site was developed as today by 1993. No industrial or commercial development was observed on the Site prior to 1965. Copies of the 1998, 1965, and 1958 aerial photographs are provided in Attachment D.

3.5 City Directory Abstract

A City Directory abstract prepared by EDR for the Site was reviewed for the Site and adjacent properties. The directory listings were provided at approximate five-year intervals from 1920 through 2002. The Site was not listed from 1920 through 1962. From 1965 through 2002, the Site was variously listed as: Hayward Motors Auto Body; Hayward Ford Leasing; Chandler Sullivan Tevers Ford, Inc.; CST Ford; Ed Chandler Ford; and Hayward Ford. The portion of the Site at 25551 Mission Boulevard was not listed.

3.6 Environmental Lien Search Report

An Environmental Lien Search Report, available from EDR, was reviewed by AET. Title for the entire Site is vested in 25501 Mission Blvd LLC. Title for the 7.4-acre parcel (APN 444-60-19-4) was received in 1999 from JG Realty Company. Title for the 1.3-area parcel (APNs 444-60-30 and 444-60-31) was received in 1999 from Lionel Sullivan and Maria S. Sullivan. No environmental

liens were found for the Site. No other Activity and Use Limitations (AULs) were found for the Site. A copy of the Environmental Lien Search Report is provided as Attachment E.

3.7 Site Reconnaissance

On February 20, 2008, AET personnel visited the Site to observe current conditions. AET was provided access to all portions of the Site by Mr. Chuck Oliver, CFO of Hayward Ford. At the time of the Site visit, Hayward Ford had moved the dealership to another facility in San Leandro, California, and the buildings were vacant, except for some of the service equipment that remained in the service department and some parts in the parts department. The service department formerly occupied two buildings on the main portion of the Site. A number of new automobiles were stored on the parking lots.

A large building was observed on the southeast portion of the main Site that was used as the showroom, sales and business offices, the parts department with a mezzanine for additional storage, a boutique, and a customer lounge (Attachment A, Photograph 1). A second showroom building with sales offices was observed on the southern portion of the Site (Photograph 2). There were no other buildings on the southern portion of the Site (Plate 2). The two showroom buildings, business and sales offices, and the parts department were environmentally unremarkable.

Water and sanitary sewer service at the Site is provided by the City of Hayward. Pacific Gas and Electric (PG&E) provides electricity and natural gas service to the Site

Main Service Building

A main T-shaped service building was located in the central portion of the Site (Plate 3). There were 40 service bays accessed through 20 roll-up doors around the exterior of the building and four large roll-up doors that provided access to the service driveways inside the building (Photographs 3 and 4). The main service entrance was on the east side of the building with interior offices for service advisors. The building also had restrooms with employee lockers, a lunchroom, and a tool storage room. Seventeen of the 40 bays had in-ground hydraulic lifts. One single piston lift in Bay 33 had a head and appeared to be operational. The remaining 16 lifts were abandoned in-place. Of the 16 abandoned lifts, 11 lifts were single piston semi-hydraulic (Bays 4, 5, 12, 13, 17, 19, 21, 24, 36, 38, and 39), one was a side-by-side lift with an in-ground reservoir (Bay 31), and four were front-to-rear lifts with two stationary pistons (no vault) with an in-ground reservoir (Bays 1, 8, 26, and 29).

Four above ground storage tanks (ASTs) used for storage of new motor oil and new automatic transmission fluid were observed in the service building. A hot parts washer was observed at the west end of the service building and two aqueous parts washers were located in the north and south wings. No significant staining was observed on the concrete floor around the ASTs and parts washers. According to Hayward Ford personnel, the ASTs, the above ground lifts, and other service equipment will be moved to the new location or sold. A 500-gallon steel used oil AST and a 180-gallon plastic used coolant AST were observed on the exterior of the building along the south wall of

the west wing (Photograph 5). The new oil ASTs and used oil AST had above ground piping with pneumatic pumps to transfer the oil to and from the ASTs and the service department. Two air compressors were observed in an alcove north of the main entrance on the east side of the building. No significant staining was observed on the concrete floor beneath the compressors. A clarifier for a number of floor drains in the service area was located outside the building in front of the main entrance.

Detail Building and Wash Rack

A smaller service building was located north of the showroom building (identified as the Detail Department). The main service driveway from Mission Boulevard was under a canopy between the two buildings. There were eleven service bays: nine in the detail (service) area and two-bays were occupied by a wash rack (Plate 4). The bays were accessed through six roll-up doors along the west side of the building (Photograph 6). The building also had a locker room and storage room. A row of small offices was located along the east side of the building facing the used car lot between the building and Mission Boulevard. Seven bays (six of the service bays and one wash rack bay) had in-ground hydraulic lifts (Plate 4). Two single piston lifts in Bays 2 and 8 had heads and appeared to be operational. The remaining five lifts were abandoned in-place. Of the 5 abandoned lifts, four lifts were single piston semi-hydraulic (Bays 1, 3, 5, and 7), and one was a front-to-rear lift with only one stationary piston in place (Wash Rack Bay 11). The rear piston and in-ground reservoir appeared to have been removed. The wash rack also had a clarifier in the center of Bay 10.

Two approximate 120-gallon steel new oil ASTs and one aqueous parts-washer were observed in the service building. No significant staining was observed on the concrete floor around the ASTs and parts washer.

Underground Storage Tanks and Groundwater Monitoring Wells

No USTs were observed at the Site. Three groundwater monitoring wells were observed at the Site: two near the former diesel and gasoline USTs; and one in the main service building near the former lift excavation. The locations of the former used-oil UST and two USTs for diesel and gasoline, and the three groundwater-monitoring wells are shown on Plate 2.

Waste Disposal Documentation

Regulatory compliance service for the Site is provided by KPA, a compliance-consulting firm. The EPA Generator Number for the Site is CAD983615378. According to waste disposal records, Asbury Environmental Services (AES, aka: Evergreen Environmental Services) transports used oil, used coolant, used filters, and spent parts washer fluids on a regular schedule for disposal. A 140-gallons of oil and water were pumped from the clarifiers on November 3, 2004 (no more recent manifest for the clarifiers were observed). Copies of recent manifests for used oil, used filters, used coolant, used batteries, and used tires are provided in Attachment F.

3.8 Adjacent Property Reconnaissance

Adjacent properties in the immediate Site vicinity were observed by AET for evidence of recognized environmental conditions. To the south of the Site is Torrano Avenue with a Dodge dealership further south. Along the southwest portion of the Site is a commercial building occupied by an auto repair business accessed from Torrano Avenue. East of the Site is Mission Boulevard with Liquor Store and a Nissan Car Lot on the east side of the six-lane Boulevard. North of the Site is a used car lot, an auto body shop, and an apartment complex. West of the Site is the BART railroad right-of-way. No recognized environmental conditions were observed from the Site or from the public right-of-way on the adjacent properties at the time of the Site visit.

4.0 SUMMARY AND CONCLUSIONS

The following is a summary of the findings presented in this report.

The Site is identified in the EDR government database report as Ed Chandler Ford Inc. (former tenant) and Hayward Ford (current tenant) and is listed on the Integrated Compliance Information System (ICIS) List for a violation of the Clean Air Act; on the HAZNET, FINDS, and RCRA-SQG Lists as a small quantity generator of hazardous wastes; on the CA FID UST and SWEEPS UST Lists as having registered underground storage tanks (USTs). The Site is also listed on the LUST and Cortese Lists as a leaking UST Site. The leak was reported in 1992 during removal of a UST. The Site is not located within 1.0 mile of a federal Superfund property. There is a low probability that the other listed properties in the Site vicinity have impacted the Site because of either/or their regulatory status (case closed or responsible party identified and assessment underway), their down- or cross-gradient locations, and/or their distances from the Site.

The LUST case has not been closed by the regulatory agency, the Hayward Fire Department (HFD). AET reviewed the case file for the Site at the HFD. Based on the file review, a release of petroleum hydrocarbons has impacted the soil and groundwater beneath the two former fuel USTs removed in 1992. Documents were reviewed concerning the removal of a used-oil UST in 1986, and a separate release of petroleum hydrocarbons from a former in-ground hydraulic lift that impacted the soil in the main service building. The impacted soil from the lift was excavated in 1990.

Based on historical aerial photographs, topographic maps, and city building department permits, three of the current buildings on the Site were developed in 1964, and the fourth was developed in 1985. Prior to development as an automobile dealership, the Site was used variously for row-crop agriculture, orchards, and small residential dwellings (possibly farm labor housing).

No environmental liens or other activity and use limitations (AULs) were found for the Site.

On February 20, 2008, AET personnel visited the Site to observe current conditions. The Site was developed with four buildings: a large building that had the showroom, sales and business offices, the parts department, a boutique, and a customer lounge; a second showroom building with sales offices; and two service buildings. The remainder of the Site had perimeter landscaping and asphalt-paved parking lots for new vehicle display and customer parking. The showrooms, parts department, customer lounge, business and sales offices, and parking lots were environmentally unremarkable.

The main T-shaped service building had 40 service bays, restrooms with employee lockers, a lunchroom, and a tool storage room. Seventeen of the 40 bays had in-ground hydraulic lifts of which sixteen were abandoned in-place. Above ground lifts were installed in most of the bays. Four above ground storage tanks (ASTs) used for storage of new motor oil and new

automatic transmission fluid were observed in the service building. A hot parts washer and two aqueous parts washers were located in the service area. No significant staining was observed on the concrete floor around the ASTs and parts washers. A 500-gallon steel used oil AST and a 180-gallon plastic used coolant AST were observed on the exterior of the building along the south wall of the west wing. A clarifier for a number of floor drains in the service area was located outside the building in front of the main entrance. The smaller service building was located north of the showroom building. There were eleven service bays including two-bays that were occupied by a wash rack. Seven bays had in-ground hydraulic lifts of which five were abandoned in-place. The wash rack also had a clarifier in the center of Bay 10. Two approximately 120-gallon steel new oil ASTs and one aqueous parts-washer were observed in the building. No significant staining was observed on the concrete floor around the ASTs and parts washer. According to Hayward Ford personnel, the ASTs, the above ground lifts, and other service equipment will be moved to the new location or sold.

No current USTs were observed at the Site. Three groundwater-monitoring wells were observed: two near the former diesel and gasoline USTs; and one in the main service building located near the former lift excavation.

No recognized environmental conditions were observed from the Site or from the public right-of-way on the adjacent properties.

Areas of potential concern at the Site include the storage and use of petroleum products and the storage and disposal of petroleum and hazardous wastes, the presence of two clarifiers, the presence of three active and 21 out-of-service abandoned in-ground hydraulic lifts, the presence of three groundwater-monitoring wells, and the presence of three former USTs. The recent Site occupant was observed to have handled petroleum products appropriately and to have generated and properly disposed of wastes; however, the activities of past occupants cannot be documented. It is not known if the abandoned in-place lifts and/or the former used oil UST had leaked; however, the former gasoline and diesel USTs did leak and the Site is identified as an open LUST case at the HFD.

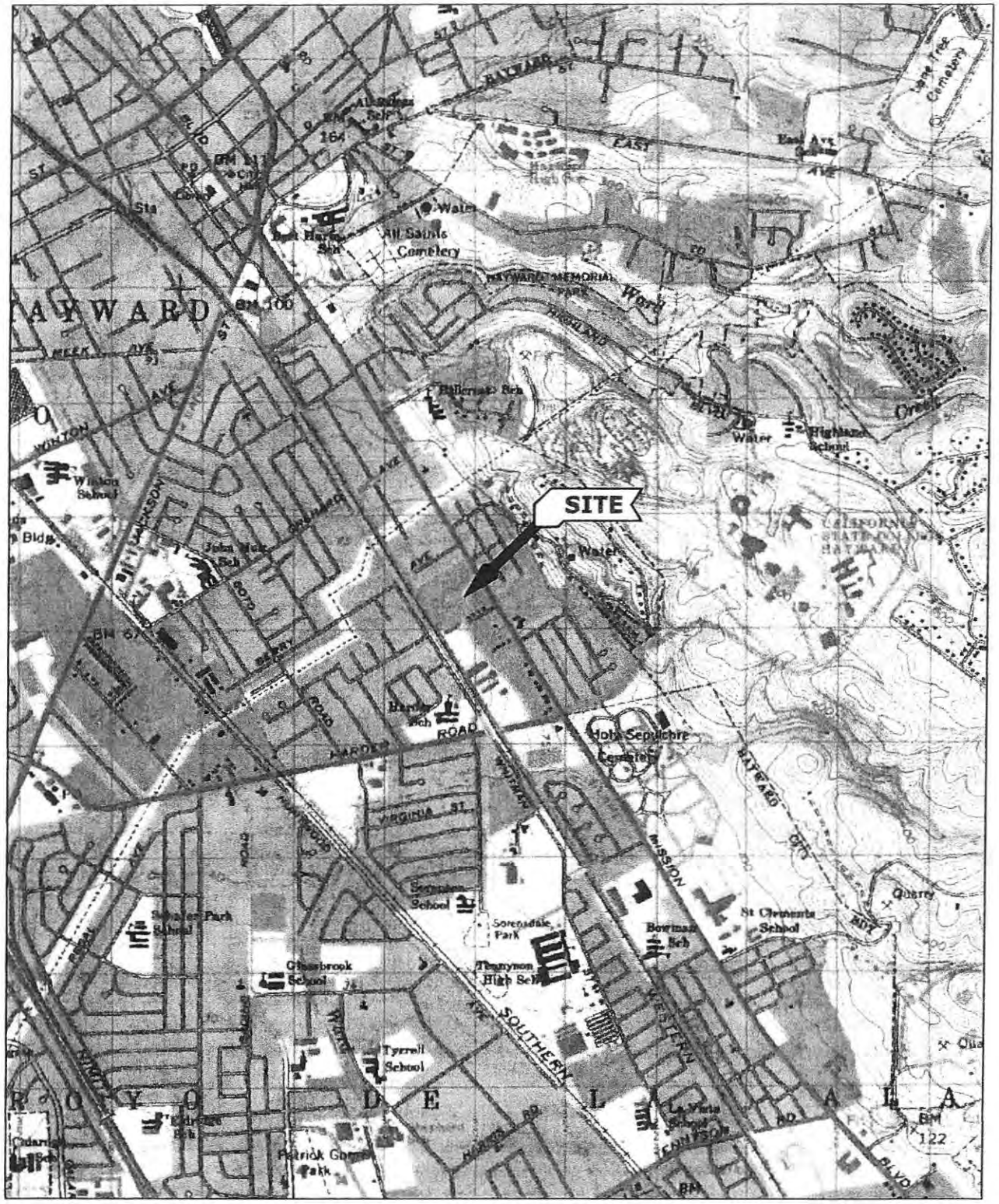
Based on the information reviewed and summarized, it is AET's professional opinion that this assessment has revealed no evidence of recognized environmental conditions, as previously defined, at the Site except for the previously identified impacted soil and groundwater at the former gasoline and diesel USTs (open LUST case at the HFD).

5.0 LIMITATIONS

This report has been prepared for the Legal Department of AutoNation, Inc. (AutoNation) and its affiliates as a Phase I Environmental Site Assessment at 25501 - 25551 Mission Boulevard, Hayward, California. Parties not designated by AutoNation or its affiliates should not rely on the information in this report without the written consent of AET and AutoNation.

Inferences with respect to potential subsurface contamination are based on a review of readily available government and historical records and Site reconnaissance. The findings and interpretations in this report have been developed based on the review of existing information pertaining to the subject Site. It should be recognized that subsurface contamination can vary laterally and with depth below a given Site.

PLATES



0' 2000' 1 MILE

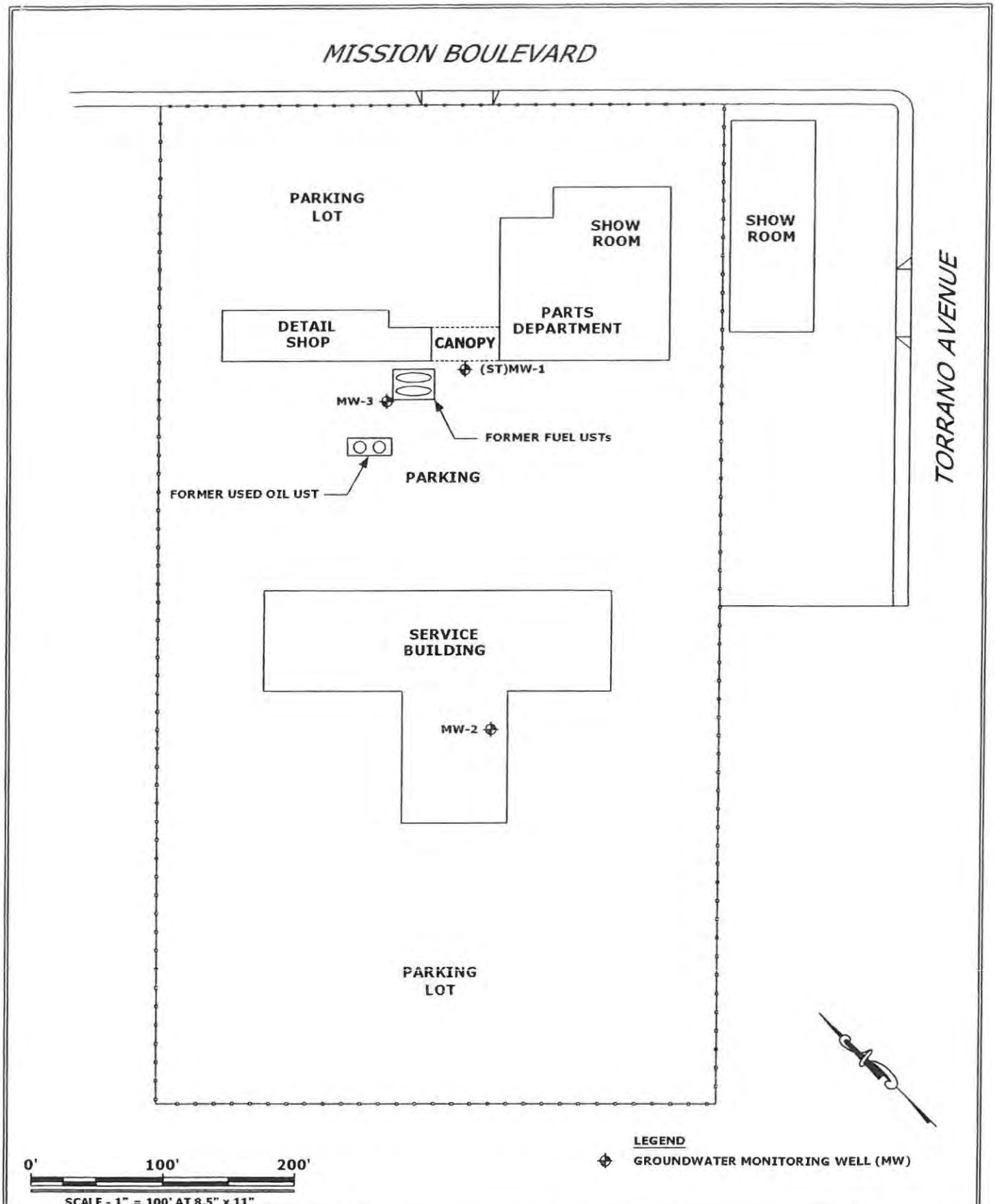
SCALE - 1" = 2000' AT 8.5" x 11"

Applied Environmental Technologies, Inc.
4561 Market Street, Suite B • Ventura, California 93003
Phone (805)650-1400 Fax (805)650-1576

SITE LOCATION MAP
25501 MISSION BLVD
HAYWARD, CALIFORNIA

PLATE REFERENCE 0876-88_P1 | PROJECT NUMBER 0876-88

PLATE 1

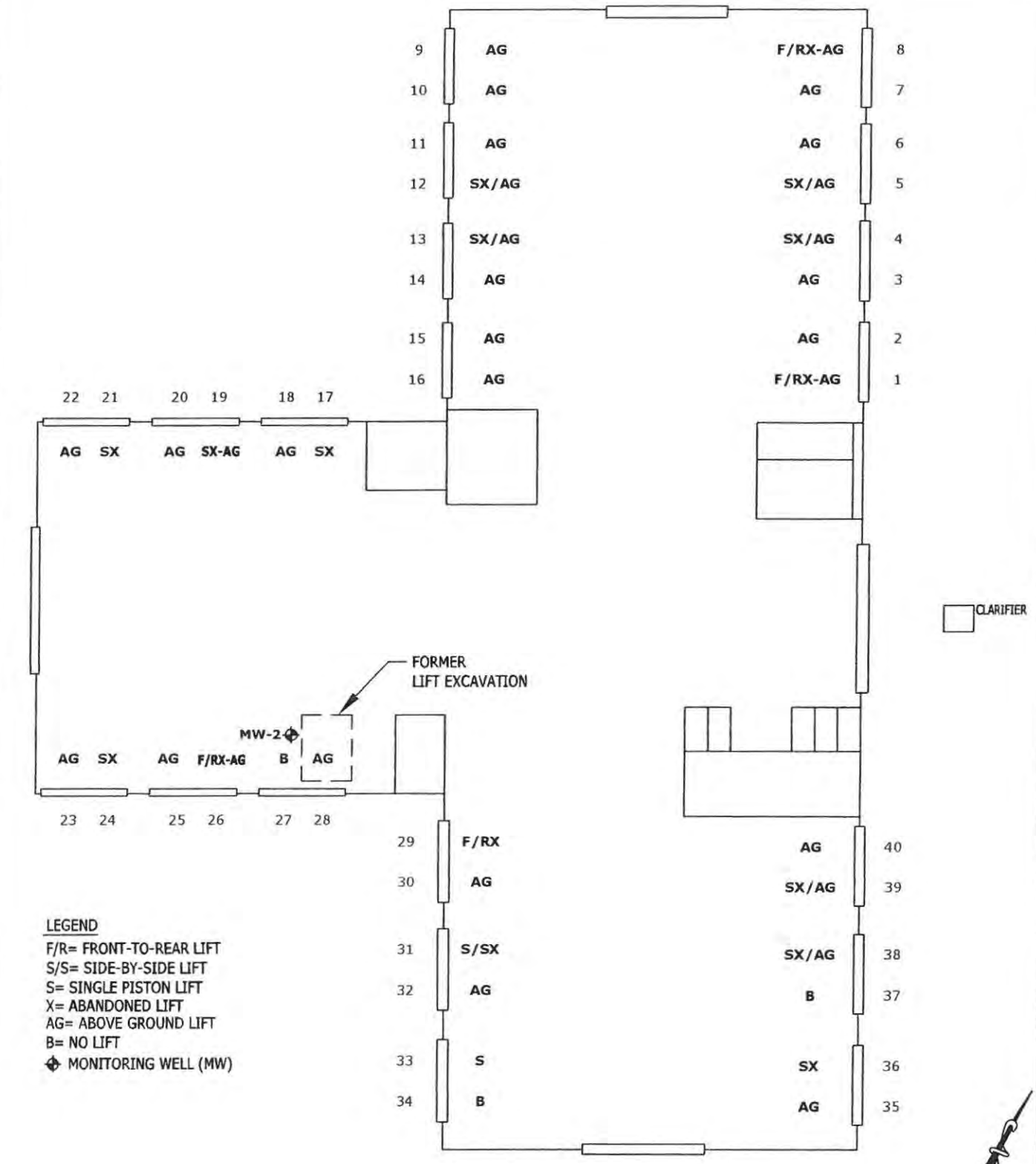


Applied Environmental Technologies, Inc.
4561 Market Street, Suite B • Ventura, California 93003
Phone (805)650-1400 Fax (805)650-1576

SITE PLAN
25501 MISSION BLVD
HAYWARD, CALIFORNIA

PLATE REFERENCE 0876-88_P2	APRIL 4, 2008	PROJECT NUMBER 0876-88

PLATE 2

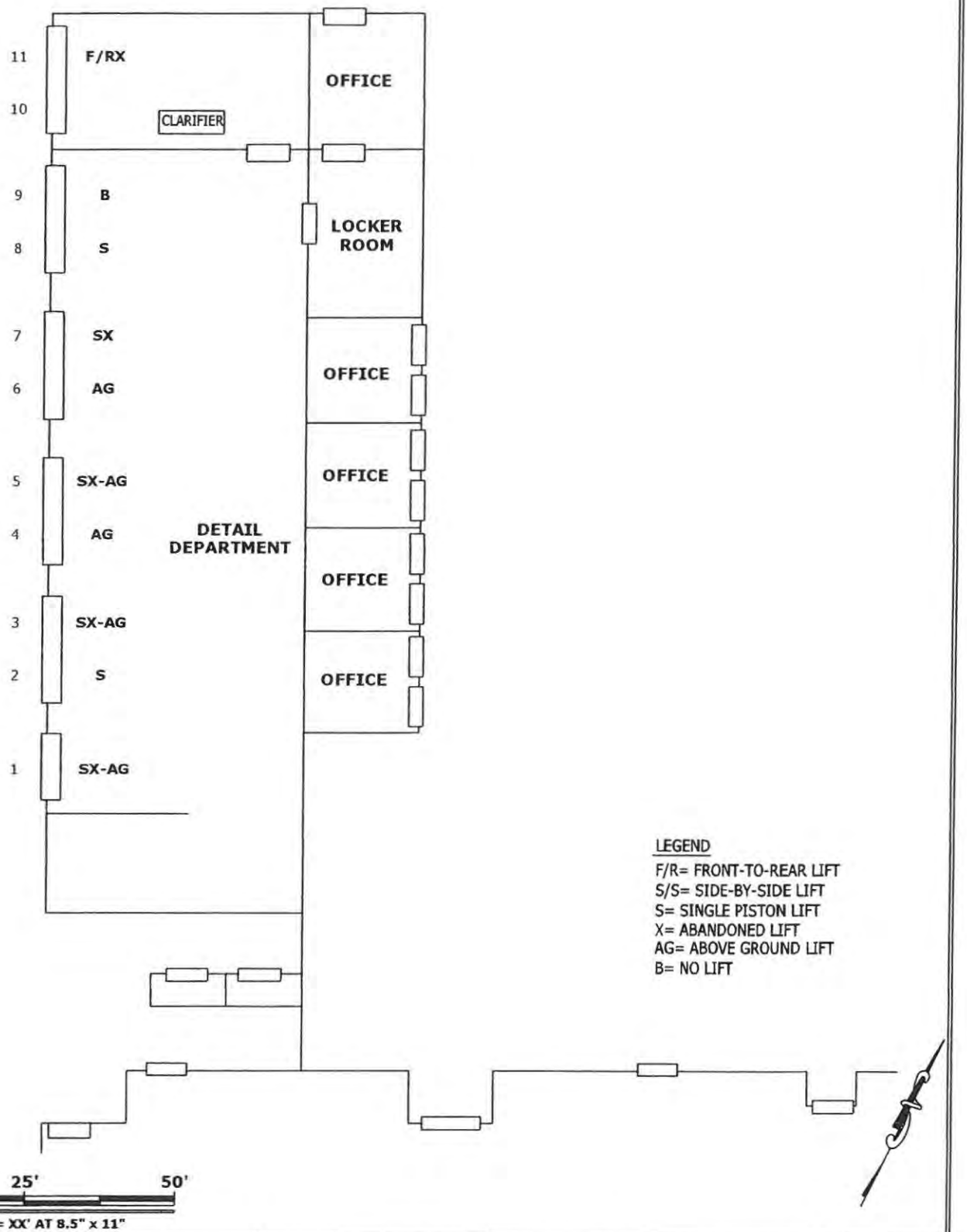


Applied Environmental Technologies, Inc.
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Phone (805)650-1400 Fax (805)650-1576

DETAIL OF MAIN SERVICE BUILDING
HAYWARD FORD LINCOLN MERCURY
25501 MISSION BLVD
HAYWARD, CA 94501

PLATE REFERENCE 0876-88_P3	MAY 4, 2008	PROJECT NUMBER 0876-88

PLATE 3



Applied Environmental Technologies, Inc.
4561 Market Street, Suite B • Ventura, California 93003
Phone (805)650-1400 Fax (805)650-1576

DETAIL BUILDING
HAYWARD FORD LINCOLN MERCURY
25501 MISSION BLVD
HAYWARD, CA 94501

PLATE 4

PLATE REFERENCE 0876-88_P4	MAY 4, 2008	PROJECT NUMBER 0876-88

ATTACHMENT A

Representative Photographs



PHOTOGRAPH 1 - View looking west at the main showroom. The small detail service building with used car sales offices can be seen just to the left of the Ford sign. The front used car display lot is behind the sign. The corner of the second showroom building is on the left of power pole and driveway. Mission Boulevard is in the foreground.



PHOTOGRAPH 2 - View looking northwest at the second showroom (former Lincoln/Mercury showroom) on the southeast corner of the Site.



PHOTOGRAPH 3 – View looking northwest at the main T-shaped service building and the large roll-up door on the south wing of the building. The main entrance is in the middle of the east side of the building, beyond the first three roll-up doors on the right.



PHOTOGRAPH 4 - View looking east at the north wing of the main service building. Bays 9 and 10 are inside the roll-up door on the left and Bays 11 through 16 follow to the right. The west wing of the building is casting the shadow on the right of the view.



PHOTOGRAPH 5 – View looking north at the used oil and used coolant ASTs on the south side of the west wing at the corner with south wing. Bay 28 is inside the roll-up door on the left where impacted soil was excavated following the removal of an in-ground lift in 1990. The water on the ground is from a morning rain.



PHOTOGRAPH 6 – View looking north at the west side of the small service building (detail building). The wash rack is located in the double bay at the far end of the building. The former gasoline and diesel USTs were located beneath the concrete surface to the left of the small club car at the corner of the building. Monitor Well 3 is in the concrete pad. The service driveway is under the canopy on the right. The main showroom is to the right of the view.

ATTACHMENT B

EDR-Radius Map Report



EDR® Environmental
Data Resources Inc

The EDR Radius Map
with GeoCheck®

Hayward Ford
25501-25551 Mission Boulevard
Hayward, CA 94544

Inquiry Number: 2143725.2s

February 13, 2008

The Standard in Environmental Risk Information

440 Wheelers Farms Road
Milford, Connecticut 06461

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802
Internet: www.edrnet.com

FORM-PRM-PEP

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-05) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

25501-25551 MISSION BOULEVARD
HAYWARD, CA 94544

COORDINATES

Latitude (North):	37.655530 - 37° 39' 19.9"
Longitude (West):	122.071650 - 122° 4' 17.9"
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	581889.4
UTM Y (Meters):	4167797.0
Elevation:	65 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	37122-F1 HAYWARD, CA
Most Recent Revision:	1980

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 6 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
HAYWARD FORD 25501 MISSION BLVD HAYWARD, CA 94544	ICIS	N/A
HAYWARD FORD 25501 MISSION BLVD HAYWARD, CA 94544	RCRA-SQG FINDS HAZNET LUST Facility Status: Leak being confirmed Cortese CA FID UST SWEEPS UST	CAD983615378
ED CHANDLER FORD INC 25501 MISSION BLVD HAYWARD, CA 94544	HIST UST	N/A

EXECUTIVE SUMMARY

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

FEDERAL RECORDS

NPL	National Priority List
Proposed NPL	Proposed National Priority List Sites
Delisted NPL	National Priority List Deletions
NPL LIENS	Federal Superfund Liens
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CERC-NFRAP	CERCLIS No Further Remedial Action Planned
LIENS 2	CERCLA Lien Information
CORRACTS	Corrective Action Report
RCRA-TSDF	RCRA - Transporters, Storage and Disposal
RCRA-LQG	RCRA - Large Quantity Generators
RCRA-CESQG	RCRA - Conditionally Exempt Small Quantity Generator
RCRA-NonGen	RCRA - Non Generators
US ENG CONTROLS	Engineering Controls Sites List
US INST CONTROL	Sites with Institutional Controls
ERNS	Emergency Response Notification System
HMIRS	Hazardous Materials Information Reporting System
DOT OPS	Incident and Accident Data
US CDL	Clandestine Drug Labs
US BROWNFIELDS	A Listing of Brownfields Sites
DOD	Department of Defense Sites
FUDS	Formerly Used Defense Sites
LUCIS	Land Use Control Information System
CONSENT	Superfund (CERCLA) Consent Decrees
ROD	Records Of Decision
UMTRA	Uranium Mill Tailings Sites
DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations
ODI	Open Dump Inventory
MINES	Mines Master Index File
TRIS	Toxic Chemical Release Inventory System
TSCA	Toxic Substances Control Act
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
SSTS	Section 7 Tracking Systems
INDIAN ODI	Report on the Status of Open Dumps on Indian Lands
PADS	PCB Activity Database System
MLTS	Material Licensing Tracking System
RADINFO	Radiation Information Database
RAATS	RCRA Administrative Action Tracking System

STATE AND LOCAL RECORDS

HIST Cal-Sites	Historical Calsites Database
CA BOND EXP. PLAN	Bond Expenditure Plan
SCH	School Property Evaluation Program
Toxic Pits	Toxic Pits Cleanup Act Sites

SWF/LF	Solid Waste Information System
CA WDS	Waste Discharge System
WMUDS/SWAT	Waste Management Unit Database
SWRCY	Recycler Database
SLIC	Statewide SLIC Cases
CS	Contaminated Sites
LIENS	Environmental Liens Listing
AST	Aboveground Petroleum Storage Tank Facilities
CHMIRS	California Hazardous Material Incident Report System
DEED	Deed Restriction Listing
VCP	Voluntary Cleanup Program Properties
CLEANERS	Cleaner Facilities
WIP	Well Investigation Program Case List
CDL	Clandestine Drug Labs
RESPONSE	State Response Sites
EMI	Emissions Inventory Data
HAULERS	Registered Waste Tire Haulers Listing

TRIBAL RECORDS

INDIAN RESERV	Indian Reservations
INDIAN LUST	Leaking Underground Storage Tanks on Indian Land
INDIAN UST	Underground Storage Tanks on Indian Land

EDR PROPRIETARY RECORDS

Manufactured Gas Plants	EDR Proprietary Manufactured Gas Plants

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

FEDERAL RECORDS

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 09/11/2007 has revealed that there are 11 RCRA-SQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
KEITH S BODY SHOP	*25401 MISSION BLVD*	*0 - 1/8 NE*	*B8*	*16*
SHANKLINS BODY SHOP	*25486 MISSION BLVD*	*0 - 1/8 NE*	*B11*	*23*
HAYWARD DODGE CHRYSLER PLYMOUT	*25601 MISSION BLVD*	*0 - 1/8 SE*	*D17*	*33*
ALLAN MOTOR COMPANY	*25715 MISSION BLVD*	*0 - 1/8 SSE*	*F28*	*53*
VOLKSWAGEN OF HAYWARD	25115 MISSION BLVD	0 - 1/8 NNW	G29	58
HAYWARD FORD FLEET SERVICE	*25789 DOLLAR ST*	*1/8 - 1/4 SSE*	*31*	*60*
HAYWARD BODY SHOP	*25087 MISSION BLVD*	*1/8 - 1/4 NNW*	*G32*	*62*
CORPORATE MOTORS	*25891 MISSION BLVD*	*1/8 - 1/4 SSE*	*H35*	*65*
HAYWARD MITSUBISHI	*25900 MISSION BLVD*	*1/8 - 1/4 SSE*	*J40*	*71*
HAYWARD NISSAN	*25995 MISSION BL*	*1/8 - 1/4 SSE*	*J44*	*73*

Lower Elevation	Address	Dist / Dir	Map ID	Page
WILMAS COLLISION REPAIR	*25571 DOLLAR STREET*	*0 - 1/8 S*	*19*	*39*

STATE AND LOCAL RECORDS

CORTESE: This database identifies public drinking water wells with detectable levels of contamination, hazardous substance sites selected for remedial action, sites with known toxic material identified through the abandoned site assessment program, sites with USTs having a reportable release and all solid waste disposal facilities from which there is known migration. The source is the California Environmental Protection Agency/Office of Emergency Information.

A review of the Cortese list, as provided by EDR, and dated 04/01/2001 has revealed that there are 13 Cortese sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
MENEZE PROPERTY	*25336 MISSION BLVD*	*0 - 1/8 NE*	*C14*	*29*
HAYWARD DODGE INC	*25601 MISSION BLVD*	*0 - 1/8 SE*	*D18*	*36*
THRIFTY OIL	*25225 MISSION BLVD*	*0 - 1/8 NNW*	*E23*	*47*
MAURY COX VANS	*25700 MISSION BLVD*	*0 - 1/8 SE*	*F27*	*51*
CALTRANS	*25030 MISSION BLVD*	*1/8 - 1/4 NNW*	*I38*	*68*
HAYWARD NISSAN	*25995 MISSION BL*	*1/8 - 1/4 SSE*	*J44*	*73*
PAHLMEYER PROPERTY	214 HARDER RD	1/4 - 1/2 SSE	47	80
CHEVRON	*24874 MISSION BLVD*	*1/4 - 1/2 NNW*	*48*	*80*
OIL CHANGERS	*26070 MISSION BLVD*	*1/4 - 1/2 SSE*	*L49*	*83*
UNOCAL	*26091 MISSION BLVD*	*1/4 - 1/2 SSE*	*L50*	*86*
LEW DOTY CADILLAC	*24773 MISSION BLVD*	*1/4 - 1/2 NNW*	*M53*	*93*
FUJIIS PLANT OUTLET	*24949 SOTO RD*	*1/4 - 1/2 W*	*54*	*95*
MISSION BLVD LINCOLN MERCURY I	*24644 MISSION BLVD*	*1/4 - 1/2 NNW*	*N55*	*97*

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the State Water Resources Control Board Leaking Underground Storage Tank Information System.

A review of the LUST list, as provided by EDR, and dated 10/10/2007 has revealed that there are 13 LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
MENEZE PROPERTY	*25336 MISSION BLVD*	*0 - 1/8 NE*	*C14*	*29*
Facility Status: Case Closed				

EXECUTIVE SUMMARY

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
HAYWARD DODGE INC Facility Status: Leak being confirmed	*25601 MISSION BLVD*	*0 - 1/8 SE*	*D18*	*36*
THRIFTY OIL Facility Status: Case Closed	*25225 MISSION BLVD*	*0 - 1/8 NNW*	*E23*	*47*
MAURY COX VANS Facility Status: Preliminary site assessment underway	*25700 MISSION BLVD*	*0 - 1/8 SE*	*F27*	*51*
CALTRANS Facility Status: Leak being confirmed	*25030 MISSION BLVD*	*1/8 - 1/4 NNW*	*I38*	*68*
HAYWARD NISSAN Facility Status: Post remedial action monitoring	*25995 MISSION BL*	*1/8 - 1/4 SSE*	*J44*	*73*
CHEVRON Facility Status: Case Closed	*24874 MISSION BLVD*	*1/4 - 1/2 NNW*	*48*	*80*
OIL CHANGERS Facility Status: Preliminary site assessment underway	*26070 MISSION BLVD*	*1/4 - 1/2 SSE*	*L49*	*83*
UNOCAL Facility Status: Case Closed	*26091 MISSION BLVD*	*1/4 - 1/2 SSE*	*L50*	*86*
HAYWARD TOYOTA Facility Status: Preliminary site assessment underway	*24773 MISSION BLVD*	*1/4 - 1/2 NNW*	*M52*	*89*
FUJIIS PLANT OUTLET Facility Status: Case Closed	*24949 SOTO RD*	*1/4 - 1/2 W*	*54*	*95*
MISSION LINCOLN MERCURY INC Facility Status: Case Closed	24644 MISSION BLVD	1/4 - 1/2 NNW	N56	102

Lower Elevation	Address	Dist / Dir	Map ID	Page
A & G RINO GAS Facility Status: Remedial action (cleanup) Underway	25757 SOTO RD	1/4 - 1/2 SW	51	87

CA FID: The Facility Inventory Database contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board.

A review of the CA FID UST list, as provided by EDR, and dated 10/31/1994 has revealed that there are 6 CA FID UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
HAYWARD DODGE INC	*25601 MISSION BLVD*	*0 - 1/8 SE*	*D18*	*36*
THRIFTY OIL STN. #055	*25225 MISSION BLVD*	*0 - 1/8 NNW*	*E22*	*44*
CALTRANS	*25030 MISSION BLVD*	*1/8 - 1/4 NNW*	*I38*	*68*
HAYWARD NISSAN	*25995 MISSION BL*	*1/8 - 1/4 SSE*	*J44*	*73*
NELSON T. LEWIS CONSTRUCTIO CO	*25001 O'NEIL AVE*	*1/8 - 1/4 NNW*	*K46*	*79*

Lower Elevation	Address	Dist / Dir	Map ID	Page
WILMAS COLLISION REPAIR	*25571 DOLLAR STREET*	*0 - 1/8 S*	*19*	*39*

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, and dated 01/07/2008 has revealed that there is 1 UST site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
ARCO #09536 THRIFTY OIL CO/BPW	25225 MISSION BLVD	0 - 1/8 NNW	E20	43

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 4 HIST UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
HAYWARD DATSUN CHRYSLER PLY.	25601 MISSION BLVD	0 - 1/8 SE	D16	33
THRIFTY OIL STN. #055	25225 MISSION BLVD	0 - 1/8 NNW	E21	43
PHIL-CO MOTORS	25030 MISSION BLVD	1/8 - 1/4 NNW	I37	68
NELSON T. LEWIS CONSTRUCTIO CO	25001O ONEIL AVE	1/8 - 1/4 NNW	K41	72

SWEEPS: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1980's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there are 7 SWEEPS UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
MENEZE PROPERTY	*25336 MISSION BLVD*	*0 - 1/8 NE*	*C14*	*29*
HAYWARD DODGE INC	*25601 MISSION BLVD*	*0 - 1/8 SE*	*D18*	*36*
THRIFTY OIL STN. #055	*25225 MISSION BLVD*	*0 - 1/8 NNW*	*E22*	*44*
CALTRANS	*25030 MISSION BLVD*	*1/8 - 1/4 NNW*	*I38*	*68*
HAYWARD NISSAN	*25995 MISSION BL*	*1/8 - 1/4 SSE*	*J44*	*73*
NELSON T. LEWIS CONSTRUCTIO CO	*25001 O'NEIL AVE*	*1/8 - 1/4 NNW*	*K46*	*79*
Lower Elevation	**Address**	**Dist / Dir**	**Map ID**	**Page**
WILMAS COLLISION REPAIR	*25571 DOLLAR STREET*	*0 - 1/8 S*	*19*	*39*

NOTIFY 65: Notify 65 records contain facility notifications about any release that could impact drinking water and thereby expose the public to a potential health risk. The data come from the State Water Resources Control Board's Proposition 65 database.

A review of the Notify 65 list, as provided by EDR, and dated 10/21/1993 has revealed that there is 1 Notify 65 site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
KARDA AUTO CLINIC	26699 MISSION BOULEVARD	1/2 - 1 SSE	57	104

EXECUTIVE SUMMARY

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 08/28/2007 has revealed that there is 1 ENVIROSTOR site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
JACKSON STREET LUMBER COMPANY Facility Status: No Further Action	73 WEST JACKSON STREET	1/2 - 1 W	58	104

EDR PROPRIETARY RECORDS

EDR Historical Auto Stations: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc.

A review of the EDR Historical Auto Stations list, as provided by EDR, has revealed that there are 19 EDR Historical Auto Stations sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
VIC S RADIATOR & REPAIR	25449 MISSION BLVD	0 - 1/8 NE	B4	15
LARRY S AUTO BODY REPR	25425 MISSION BLVD	0 - 1/8 NE	B5	15
ANKIRK WHEEL & BRAKE	25427 MISSION BLVD	0 - 1/8 NE	B6	15
FIAT SPECIALTIES	25417 MISSION BLVD	0 - 1/8 NE	B7	15
MISSION AUTO CLINIC	25393 MISSION BLVD	0 - 1/8 NE	9	22
KEITH S BODY SHOP	25486 MISSION BLVD	0 - 1/8 NE	B12	29
AHLGREN AUTOMOTIVE	25336 MISSION BLVD	0 - 1/8 NE	C13	29
COOPER MOTOR CO	25601 MISSION BLVD	0 - 1/8 SE	D15	32
TOM S GULF SERVICE	25225 MISSION BLVD	0 - 1/8 NNW	E24	50
FOREIGN CAR SPECIALISTS	25224 MISSION BLVD	0 - 1/8 NNW	E25	50
BERRY AVENUE AUTOMOTIVE SERVIC	773 BERRY AVE	0 - 1/8 NNW	E26	51
SOUZA RAIDATOR SERV	25101 MISSION BLVD	1/8 - 1/4 NNW	G30	59
DALBEY S BODY SHOP	25870 MISSION BLVD	1/8 - 1/4 SE	33	65
BOB S CAMPER & TRAILER REPAIR	25156 O NEIL AVE	1/8 - 1/4 NNW	34	65
SHUCK S AUTOMOTIVE	25899 MISSION BLVD	1/8 - 1/4 SSE	H36	68
JAVA AUTOMOTIVE	25899 DOLLAR ST	1/8 - 1/4 SSE	39	71
DAVE S AUTO BODY	25021 O NEIL AVE	1/8 - 1/4 NNW	K42	73
SNEED DANNY AUTO REPR	25019 O NEIL AVE	1/8 - 1/4 NNW	K43	73
WATERS OLDSMOBILE	25995 MISSION BLVD	1/8 - 1/4 SSE	J45	79

EXECUTIVE SUMMARY

EDR Historical Cleaners: EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc.

A review of the EDR Historical Cleaners list, as provided by EDR, has revealed that there is 1 EDR Historical Cleaners site within approximately 0.25 miles of the target property.

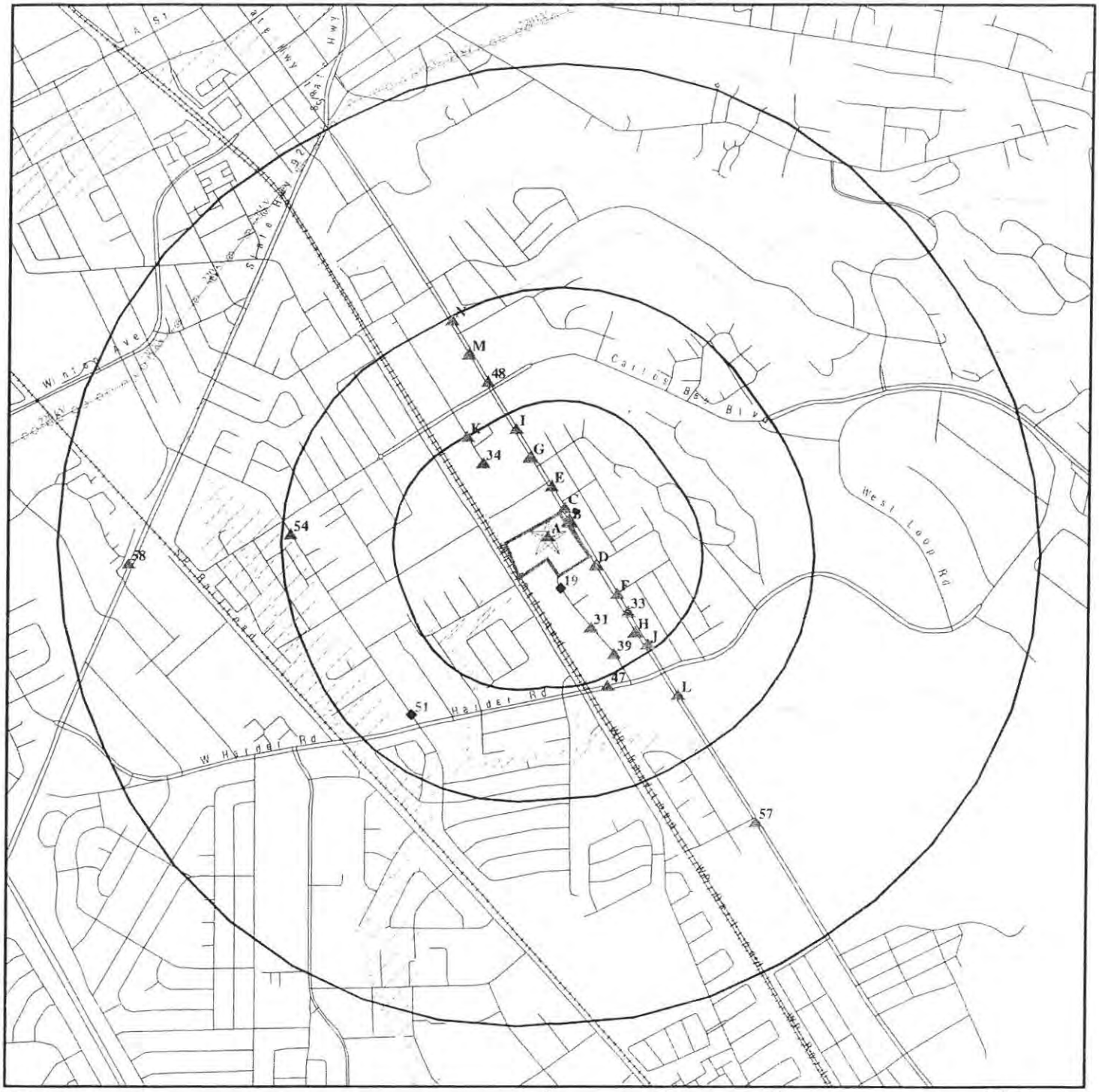
Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
HAYWARD DRIVE IN CLEANERS	25516 MISSION BLVD	0 - 1/8 NE	B10	22

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped:

Site Name	Database(s)
UNION PACIFIC RR HAYWARD SIDING	CS
AT & T WALPERT RIDGE (CAL202)	SWEEPS UST
CITY OF HAYWARD	SWEEPS UST
CITY OF HAYWARD	SWEEPS UST
WIEGMAN FARMS	CERC-NFRAP
HAYWARD CITY TOW & REPAIR	HAZNET
COUNTY OF HAYWARD - PUBLIC WORKS	HAZNET
TASHA AUTOMOTIVE GROUP DBA HAYWARD TOYOTA	HAZNET
HAYWARD TOYOTA	HAZNET
NORTH HAYWARD CORP CENTER ASSOC	HAZNET
HAYWARD LANE	ERNS
HAYWARD (UNKNOWN EXACT LOCATION)	ERNS
NR:CORSAIR ST/HAYWARD CA	ERNS
SOUTHERN PACIFIC HAYWARD LINE, COAST SUBDIVISION, ROSEVILLE	ERNS
HAYWARD REBOND PLANT	FINDS
AMERICAN STORES - HAYWARD	SLIC
UNION PACIFIC RR HAYWARD SIDING	SLIC
BURBANK E.S./HAYWARD JOINT USE PARK	SCH, ENVIROSTOR

OVERVIEW MAP - 2143725.2s



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

Indian Reservations BIA

Power transmission lines

Oil & Gas pipelines

100-year flood zone

500-year flood zone

National Wetland Inventory

Areas of Concern

0 1/4 1/2 1 Miles

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Hayward Ford	CLIENT: Applied Environmental Tech.
ADDRESS: 25501-25551 Mission Boulevard Hayward CA 94544	CONTACT: Wally Jensky INQUIRY #: 2143725.2s
LAT/LONG: 37.6555 / 122.0717	DATE: February 13, 2008 1:41 pm

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DETAIL MAP - 2143725.2s



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

0 1/16 1/8 1/4 Miles

Indian Reservations BIA

Oil & Gas pipelines

100-year flood zone

500-year flood zone

Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	Hayward Ford	CLIENT:	Applied Environmental Tech.
ADDRESS:	25501-25551 Mission Boulevard Hayward CA 94544	CONTACT:	Wally Jensky
		INQUIRY #:	2143725.2s
LAT/LONG:	37.6555 / 122.0717	DATE:	February 13, 2008 1:41 pm

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MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FEDERAL RECORDS								
NPL		1.000	0	0	0	0	NR	0
Proposed NPL		1.000	0	0	0	0	NR	0
Delisted NPL		1.000	0	0	0	0	NR	0
NPL LIENS		TP	NR	NR	NR	NR	NR	0
CERCLIS		0.500	0	0	0	NR	NR	0
CERC-NFRAP		0.500	0	0	0	NR	NR	0
LIENS 2		TP	NR	NR	NR	NR	NR	0
CORRACTS		1.000	0	0	0	0	NR	0
RCRA-TSDF		0.500	0	0	0	NR	NR	0
RCRA-LQG		0.250	0	0	NR	NR	NR	0
RCRA-SQG	X	0.250	6	5	NR	NR	NR	11
RCRA-CESQG		0.250	0	0	NR	NR	NR	0
RCRA-NonGen		TP	NR	NR	NR	NR	NR	0
US ENG CONTROLS		0.500	0	0	0	NR	NR	0
US INST CONTROL		0.500	0	0	0	NR	NR	0
ERNS		TP	NR	NR	NR	NR	NR	0
HMIRS		TP	NR	NR	NR	NR	NR	0
DOT OPS		TP	NR	NR	NR	NR	NR	0
CDL		TP	NR	NR	NR	NR	NR	0
US BROWNFIELDS		0.500	0	0	0	NR	NR	0
DOD		1.000	0	0	0	0	NR	0
FUDS		1.000	0	0	0	0	NR	0
LUCIS		0.500	0	0	0	NR	NR	0
CONSENT		1.000	0	0	0	0	NR	0
ROD		1.000	0	0	0	0	NR	0
UMTRA		0.500	0	0	0	NR	NR	0
DEBRIS REGION 9		0.500	0	0	0	NR	NR	0
ODI		0.500	0	0	0	NR	NR	0
MINES		0.250	0	0	NR	NR	NR	0
TRIS		TP	NR	NR	NR	NR	NR	0
TSCA		TP	NR	NR	NR	NR	NR	0
FTTS		TP	NR	NR	NR	NR	NR	0
HIST FTTS		TP	NR	NR	NR	NR	NR	0
SSTS		TP	NR	NR	NR	NR	NR	0
INDIAN ODI		0.500	0	0	0	NR	NR	0
ICIS	X	TP	NR	NR	NR	NR	NR	0
PADS		TP	NR	NR	NR	NR	NR	0
MLTS		TP	NR	NR	NR	NR	NR	0
RADINFO		TP	NR	NR	NR	NR	NR	0
FINDS	X	TP	NR	NR	NR	NR	NR	0
RAATS		TP	NR	NR	NR	NR	NR	0
STATE AND LOCAL RECORDS								
Hist Cal-Sites		1.000	0	0	0	0	NR	0
CA Bond Exp. Plan		1.000	0	0	0	0	NR	0
SCH		0.250	0	0	NR	NR	NR	0
Toxic Pits		1.000	0	0	0	0	NR	0

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
State Landfill		0.500	0	0	0	NR	NR	0
CA WDS		TP	NR	NR	NR	NR	NR	0
WMUDS/SWAT		0.500	0	0	0	NR	NR	0
Cortese	X	0.500	4	2	7	NR	NR	13
SWRCY		0.500	0	0	0	NR	NR	0
LUST	X	0.500	4	2	7	NR	NR	13
CA FID UST	X	0.250	3	3	NR	NR	NR	6
SLIC		0.500	0	0	0	NR	NR	0
CS		0.500	0	0	0	NR	NR	0
UST		0.250	1	0	NR	NR	NR	1
HIST UST	X	0.250	2	2	NR	NR	NR	4
LIENS		TP	NR	NR	NR	NR	NR	0
AST		0.250	0	0	NR	NR	NR	0
SWEEPS UST	X	0.250	4	3	NR	NR	NR	7
CHMIRS		TP	NR	NR	NR	NR	NR	0
Notify 65		1.000	0	0	0	1	NR	1
DEED		0.500	0	0	0	NR	NR	0
VCP		0.500	0	0	0	NR	NR	0
DRYCLEANERS		0.250	0	0	NR	NR	NR	0
WIP		0.250	0	0	NR	NR	NR	0
CDL		TP	NR	NR	NR	NR	NR	0
RESPONSE		1.000	0	0	0	0	NR	0
HAZNET	X	TP	NR	NR	NR	NR	NR	0
EMI		TP	NR	NR	NR	NR	NR	0
HAULERS		TP	NR	NR	NR	NR	NR	0
ENVIROSTOR		1.000	0	0	0	1	NR	1
TRIBAL RECORDS								
INDIAN RESERV		1.000	0	0	0	0	NR	0
INDIAN LUST		0.500	0	0	0	NR	NR	0
INDIAN UST		0.250	0	0	NR	NR	NR	0
EDR PROPRIETARY RECORDS								
Manufactured Gas Plants		1.000	0	0	0	0	NR	0
EDR Historical Auto Stations		0.250	11	8	NR	NR	NR	19
EDR Historical Cleaners		0.250	1	0	NR	NR	NR	1

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1 Target Property **HAYWARD FORD**
25501 MISSION BLVD
HAYWARD, CA 94544

ICIS 1010274176
N/A

Site 1 of 3 in cluster A

Actual: 65 ft.

ICIS:

Enforcement Action ID:	09-2006-0247
FRS ID:	110002866266
Program ID:	FRS 110002866266
Action Name:	HAYWARD FORD
Facility Name:	HAYWARD FORD
Facility Address:	25501 MISSION BLVD HAYWARD, California 94544
Enforcement Action Type:	CAA 113D1 Action For Penalty
Facility County:	ALAMEDA
EPA Region #:	9

Program ID:	AIRS/AFS 06001R9996
Facility Name:	HAYWARD FORD
Address:	25501 MISSION BLVD HAYWARD CA 94544
Tribal Indicator:	Not reported
Fed Facility:	Not reported
NAIC Code:	Not reported
SIC Code:	5511

Program ID:	FRS 110002866266
Facility Name:	HAYWARD FORD
Address:	25501 MISSION BLVD HAYWARD CA 94544
Tribal Indicator:	No
Fed Facility:	No
NAIC Code:	Not reported
SIC Code:	5511

Program ID:	HWTS-DATAMART CAD983615378
Facility Name:	HAYWARD FORD
Address:	25501 MISSION BLVD HAYWARD CA 94544
Tribal Indicator:	Not reported
Fed Facility:	Not reported
NAIC Code:	Not reported
SIC Code:	5511

Program ID:	RCRAINFO CAD983615378
Facility Name:	HAYWARD FORD
Address:	25501 MISSION BLVD HAYWARD CA 94544
Tribal Indicator:	Not reported
Fed Facility:	Not reported
NAIC Code:	Not reported
SIC Code:	5511

Enforcement Action ID:	09-2006-0217
FRS ID:	110002866266
Program ID:	FRS 110002866266
Action Name:	HAYWARD FORD
Facility Name:	HAYWARD FORD
Facility Address:	25501 MISSION BLVD HAYWARD, California 94544
Enforcement Action Type:	CAA 113A Admin Compliance Order (Non-Penalty)
Facility County:	ALAMEDA

HAYWARD FORD (Continued) **1010274176**

EPA Region #: 9

Program ID: AIRS/AFS 06001R9996
Facility Name: HAYWARD FORD
Address: 25501 MISSION BLVD HAYWARD CA 94544
Tribal Indicator: Not reported
Fed Facility: Not reported
NAIC Code: Not reported
SIC Code: 5511

Program ID: FRS 110002866266
Facility Name: HAYWARD FORD
Address: 25501 MISSION BLVD HAYWARD CA 94544
Tribal Indicator: No
Fed Facility: No
NAIC Code: Not reported
SIC Code: 5511

Program ID: HWTS-DATAMART CAD983615378
Facility Name: HAYWARD FORD
Address: 25501 MISSION BLVD HAYWARD CA 94544
Tribal Indicator: Not reported
Fed Facility: Not reported
NAIC Code: Not reported
SIC Code: 5511

Program ID: RCRAINFO CAD983615378
Facility Name: HAYWARD FORD
Address: 25501 MISSION BLVD HAYWARD CA 94544
Tribal Indicator: Not reported
Fed Facility: Not reported
NAIC Code: Not reported
SIC Code: 5511

A2 **HAYWARD FORD** **RCRA-SQG** **1000597522**
Target **25501 MISSION BLVD** **FINDS** **CAD983615378**
Property **HAYWARD, CA 94544** **HAZNET**
LUST
Site 2 of 3 in cluster A **Cortese**
Actual: **CA FID UST**
65 ft. **SWEEPS UST**

RCRA-SQG:
Date form received by agency: 06/29/2005
Facility name: HAYWARD FORD
Facility address: 25501 MISSION BLVD
HAYWARD, CA 94544
EPA ID: CAD983615378
Contact: ALAN L WALDIE
Contact address: 25501 MISSION BLVD
HAYWARD, CA 94544
Contact country: US
Contact telephone: 510-881-1200
Contact email: AWALDIE@HAYWARDFORD.COM
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous

HAYWARD FORD (Continued) **1000597522**

waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	HAYWARD FORD INC
Owner/operator address:	25501 MISSION BLVD
	HAYWARD, CA 94544
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	12/23/1991
Owner/Op end date:	Not reported
Owner/operator name:	ALAN WALDIE
Owner/operator address:	Not reported
	Not reported
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	06/22/2005
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No
Off-site waste receiver:	Commercial status unknown

Historical Generators:

Date form received by agency:	12/23/1991
Facility name:	HAYWARD FORD
Classification:	Small Quantity Generator

Hazardous Waste Summary:

Waste code:	D002
Waste name:	A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS

HAYWARD FORD (Continued) **1000597522**

USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

Waste code: D008
Waste name: LEAD

Waste code: F001
Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLOROETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE, AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site

AFS (Aerometric Information Retrieval System (AIRS) Facility Subsystem) replaces the former Compliance Data System (CDS), the National Emission Data System (NEDS), and the Storage and Retrieval of Aerometric Data (SAROAD). AIRS is the national repository for information concerning airborne pollution in the United States. AFS is used to track emissions and compliance data from industrial plants. AFS data are utilized by states to prepare State Implementation Plans to comply with regulatory programs and by EPA as an input for the estimation of total national emissions. AFS is undergoing a major redesign to support facility operating permits required under Title V of the Clean Air Act.

California - Hazardous Waste Tracking System - Datamart

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

ICIS (Integrated Compliance Information System) is the Integrated Compliance Information System and provides a database that, when complete, will contain integrated Enforcement and Compliance information across most of EPA's programs. The vision for ICIS is to replace EPA's independent databases that contain Enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions. This information is maintained in ICIS by EPA in the Regional offices and its Headquarters. A future release of ICIS will replace the Permit Compliance System (PCS) which supports the NPDES and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities occurring in the Region that support Compliance and Enforcement programs. These include; Incident Tracking, Compliance Assistance, and Compliance Monitoring.

HAYWARD FORD (Continued) **1000597522**

HAZNET:

Gepaid:	CAD983615378
Contact:	HAYWARD FORD INC
Telephone:	5108811200
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	25501 MISSION BLVD
Mailing City,St,Zip:	HAYWARD, CA 945442524
Gen County:	1
TSD EPA ID:	CAD982444481
TSD County:	San Bernardino
Waste Category:	Other organic solids
Disposal Method:	Transfer Station
Tons:	.2500
Facility County:	1

Gepaid:	CAD983615378
Contact:	HAYWARD FORD INC
Telephone:	5108811200
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	25501 MISSION BLVD
Mailing City,St,Zip:	HAYWARD, CA 945442524
Gen County:	1
TSD EPA ID:	CAD980887418
TSD County:	1
Waste Category:	Aqueous solution with less than 10% total organic residues
Disposal Method:	Transfer Station
Tons:	10.6542
Facility County:	1

Gepaid:	CAD983615378
Contact:	HAYWARD FORD INC
Telephone:	5108811200
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	25501 MISSION BLVD
Mailing City,St,Zip:	HAYWARD, CA 945442524
Gen County:	1
TSD EPA ID:	CAD980887418
TSD County:	1
Waste Category:	Waste oil and mixed oil
Disposal Method:	Recycler
Tons:	.3336
Facility County:	1

Gepaid:	CAD983615378
Contact:	ALAN WALDIE
Telephone:	5108811200
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	25501 MISSION BLVD
Mailing City,St,Zip:	HAYWARD, CA 945442524
Gen County:	Alameda
TSD EPA ID:	CAD980887418
TSD County:	Alameda
Waste Category:	Hydrocarbon solvents (benzene, hexane, Stoddard, etc.)

HAYWARD FORD (Continued) **1000597522**

Disposal Method: H14
Tons: 0.22
Facility County: 1

Gepaid: CAD983615378
Contact: RON CALAVANO
Telephone: 5108811200
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 25501 MISSION BLVD
Mailing City,St,Zip: HAYWARD, CA 945442524
Gen County: Alameda
TSD EPA ID: Not reported
TSD County: Alameda
Waste Category: Waste oil and mixed oil
Disposal Method: Recycler
Tons: 0.77
Facility County: Not reported

Click this hyperlink while viewing on your computer to access
21 additional CA_HAZNET: record(s) in the EDR Site Report.

LUST:
Region: STATE
Case Type: Soil only
Cross Street: Not reported
Enf Type: F
Funding: Not reported
How Discovered: Tank Closure
How Stopped: Not reported
Leak Cause: Structure Failure
Leak Source: Tank
Global Id: T0600101040
Stop Date: 1992-11-17 00:00:00
Confirm Leak: 1996-08-07 00:00:00
Workplan: Not reported
Prelim Assess: Not reported
Pollution Char: Not reported
Remed Plan: Not reported
Remed Action: Not reported
Monitoring: Not reported
Close Date: Not reported
Discover Date: 1992-11-17 00:00:00
Enforcement Dt: Not reported
Release Date: 1992-11-17 00:00:00
Review Date: 1996-01-24 00:00:00
Enter Date: 1992-11-19 00:00:00
MTBE Date: Not reported
GW Qualifier: Not reported
Soil Qualifier: Not reported
Max MTBE GW ppb: Not reported
Max MTBE Soil ppb: Not reported
County: 01
Org Name: Not reported
Reg Board: San Francisco Bay Region
Status: Leak being confirmed
Chemical: Diesel

HAYWARD FORD (Continued) **1000597522**

Contact Person: Not reported
Responsible Party: JOHN THORNTON
RP Address: 204 SECOND AVENUE, #115
Interim: No
Oversight Prgm: LUST
MTBE Class: *
MTBE Conc: 0
MTBE Fuel: 0
MTBE Tested: Not Required to be Tested.
Staff: Not reported
Staff Initials: DMG
Lead Agency: Local Agency
Local Agency: 01003
Hydr Basin #: Alameda East Bay (2-
Beneficial: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: No
Local Case #: 01-1130
Case Number: 01-1130
Qty Leaked: Not reported
Abate Method: No Action Taken - no action has as yet been taken at the site
Operator: Not reported
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported
Summary: RECH ENGINEERING 1992 RPT TPH-D 130 PPM, BTEX ND

LUST:
Region: 2
Facility Status: Leak being confirmed
Facility Id: 01-1130
Case Number: 01-1130
How Discovered: Tank Closure
Leak Cause: Structure Failure
Leak Source: Tank
Date Leak Confirmed: 8/7/1996
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

Cortese:
Region: CORTESE
Facility Addr2: 25501 MISSION BLVD

CA FID UST:
Facility ID: 01000871
Regulated By: UTNKI
Regulated ID: 00043461
Cortese Code: Not reported

HAYWARD FORD (Continued) **1000597522**

SIC Code: Not reported
Facility Phone: 4158811200
Mail To: Not reported
Mailing Address: P O BOX 19288
Mailing Address 2: Not reported
Mailing City,St,Zip: HAYWARD 94544
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Inactive

SWEEPS UST:
Status: Not reported
Comp Number: 43461
Number: Not reported
Board Of Equalization: 44-000901
Ref Date: Not reported
Act Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: 01-003-043461-000001
Actv Date: Not reported
Capacity: 1500
Tank Use: M.V. FUEL
Stg: PRODUCT
Content: REG UNLEADED
Number Of Tanks: 3

Status: Not reported
Comp Number: 43461
Number: Not reported
Board Of Equalization: 44-000901
Ref Date: Not reported
Act Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: 01-003-043461-000002
Actv Date: Not reported
Capacity: 1500
Tank Use: M.V. FUEL
Stg: PRODUCT
Content: DIESEL
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 43461
Number: Not reported
Board Of Equalization: 44-000901
Ref Date: Not reported
Act Date: Not reported
Created Date: Not reported
Tank Status: Not reported

HAYWARD FORD (Continued) **1000597522**

Owner Tank Id: Not reported
Swrcb Tank Id: 01-003-043461-000003
Actv Date: Not reported
Capacity: 500
Tank Use: OIL
Stg: WASTE
Content: WASTE OIL
Number Of Tanks: Not reported

A3 **ED CHANDLER FORD INC** **HIST UST** **U001597053**
Target **25501 MISSION BLVD** **N/A**
Property **HAYWARD, CA 94544**

Site 3 of 3 in cluster A

Actual:
65 ft.

HIST UST:
Region: STATE
Facility ID: 00000043461
Facility Type: Other
Other Type: AUTO DEALERSHIP
Total Tanks: 0003
Contact Name: Not reported
Telephone: 4158811200
Owner Name: ED CHANDLER FORD INC
Owner Address: 25501 MISSION BLVD.
Owner City,St,Zip: HAYWARD, CA 94544

Tank Num: 001
Container Num: 1
Year Installed: 1963
Tank Capacity: 00002000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: Not reported
Leak Detection: Not reported

Tank Num: 002
Container Num: 2
Year Installed: 1963
Tank Capacity: 00002000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Tank Construction: Not reported
Leak Detection: Pressure Test

Tank Num: 003
Container Num: 3
Year Installed: 1963
Tank Capacity: 00000000
Tank Used for: WASTE
Type of Fuel: WASTE OIL
Tank Construction: Not reported
Leak Detection: Pressure Test

B4 **VIC S RADIATOR & REPAIR** **EDR Historical Auto Stations** **1009015885**
NE **25449 MISSION BLVD** **N/A**
< 1/8 **HAYWARD, CA**
30 ft.

Site 1 of 8 in cluster B

Relative:
Higher

EDR Historical Auto Stations:

Name:	RAY & LYNS SERVICE
Year:	1959
Type:	GASOLINE STATIONS
Name:	VIC S RADIATOR & REPAIR
Year:	1976
Type:	AUTOMOBILE REPAIRING

Actual:
68 ft.

B5 **LARRY S AUTO BODY REPR** **EDR Historical Auto Stations** **1009015668**
NE **25425 MISSION BLVD** **N/A**
< 1/8 **HAYWARD, CA**
36 ft.

Site 2 of 8 in cluster B

Relative:
Higher

EDR Historical Auto Stations:

Name:	LARRY S AUTO BODY REPR
Year:	1976
Type:	AUTOMOBILE REPAIRING

Actual:
68 ft.

B6 **ANKIRK WHEEL & BRAKE** **EDR Historical Auto Stations** **1009015572**
NE **25427 MISSION BLVD** **N/A**
< 1/8 **HAYWARD, CA**
37 ft.

Site 3 of 8 in cluster B

Relative:
Higher

EDR Historical Auto Stations:

Name:	ANKIRK WHEEL & BRAKE
Year:	1976
Type:	AUTOMOBILE REPAIRING

Actual:
69 ft.

B7 **FIAT SPECIALTIES** **EDR Historical Auto Stations** **1009015170**
NE **25417 MISSION BLVD** **N/A**
< 1/8 **HAYWARD, CA**
38 ft.

Site 4 of 8 in cluster B

Relative:
Higher

EDR Historical Auto Stations:

Name:	CAMPBELL S AUTOMOTIVE SERVICE
Year:	1970
Type:	AUTOMOBILE REPAIRING
Name:	FIAT SPECIALTIES
Year:	1976
Type:	AUTOMOBILE REPAIRING

Actual:
68 ft.

B8 **KEITH S BODY SHOP** **RCRA-SQG** **1000406952**
NE **25401 MISSION BLVD** **FINDS** **CAD028287258**
< 1/8 **HAYWARD, CA 94544** **HAZNET**
39 ft. **EMI**

Site 5 of 8 in cluster B

Relative: Higher

Actual: 68 ft.

RCRA-SQG:

Date form received by agency:	07/25/1986
Facility name:	KEITH'S BODY SHOP
Facility address:	25401 MISSION BLVD HAYWARD, CA 94544
EPA ID:	CAD028287258
Contact:	ENVIRONMENTAL MANAGER
Contact address:	25401 MISSION BLVD HAYWARD, CA 94544
Contact country:	US
Contact telephone:	(415) 538-4073
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler; generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	GAMEZ STEVE
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	Unknown
Mixed waste (haz. and radioactive):	Unknown
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	Unknown
Furnace exemption:	Unknown
Used oil fuel burner:	No
Used oil processor:	No

KEITH S BODY SHOP (Continued) **1000406952**

User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site

California - Hazardous Waste Tracking System - Datamart

The NEI (National Emissions Inventory) database contains information on stationary and mobile sources that emit criteria air pollutants and their precursors, as well as hazardous air pollutants (HAPs).

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZNET:
Gepaid: CAD028287258
Contact: STEVE GAMEZ
Telephone: 0000000000
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 25401 MISSION BLVD
Mailing City,St,Zip: HAYWARD, CA 945440000
Gen County: 1
TSD EPA ID: CAD008302903
TSD County: Los Angeles
Waste Category: Hydrocarbon solvents (benzene, hexane, Stoddard, etc.)
Disposal Method: Recycler
Tons: .6880
Facility County: 1

Gepaid: CAD028287258
Contact: STEVE GAMEZ
Telephone: 0000000000
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 25401 MISSION BLVD
Mailing City,St,Zip: HAYWARD, CA 945440000
Gen County: 1
TSD EPA ID: CAD008302903
TSD County: Los Angeles
Waste Category: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method: Recycler
Tons: .4003
Facility County: 1

KEITH S BODY SHOP (Continued) **1000406952**

Gepaid:	CAD028287258
Contact:	STEVE GAMEZ
Telephone:	0000000000
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	25401 MISSION BLVD
Mailing City,St,Zip:	HAYWARD, CA 945440000
Gen County:	1
TSD EPA ID:	CAD008302903
TSD County:	Los Angeles
Waste Category:	Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method:	Recycler
Tons:	1.6680
Facility County:	1

Gepaid:	CAD028287258
Contact:	STEVE GAMEZ
Telephone:	0000000000
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	25401 MISSION BLVD
Mailing City,St,Zip:	HAYWARD, CA 945440000
Gen County:	1
TSD EPA ID:	CAD008302903
TSD County:	Los Angeles
Waste Category:	Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method:	Recycler
Tons:	.6880
Facility County:	1

Gepaid:	CAD028287258
Contact:	STEVE GAMEZ
Telephone:	0000000000
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	25401 MISSION BLVD
Mailing City,St,Zip:	HAYWARD, CA 945440000
Gen County:	1
TSD EPA ID:	CAD008302903
TSD County:	Los Angeles
Waste Category:	Hydrocarbon solvents (benzene, hexane, Stoddard, etc.)
Disposal Method:	Recycler
Tons:	0.7297
Facility County:	1

Click this hyperlink while viewing on your computer to access
1 additional CA_HAZNET: record(s) in the EDR Site Report.

EMI:

Year:	1993
Carbon Monoxide Emissions Tons/Yr:	1
Air Basin:	SF
Facility ID:	7150
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported

KEITH S BODY SHOP (Continued) **1000406952**

Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	1
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1995
Carbon Monoxide Emissions Tons/Yr:	1
Air Basin:	SF
Facility ID:	7150
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	1
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1996
Carbon Monoxide Emissions Tons/Yr:	1
Air Basin:	SF
Facility ID:	7150
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	1
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1997
Carbon Monoxide Emissions Tons/Yr:	1
Air Basin:	SF
Facility ID:	7150
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	1
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0

KEITH S BODY SHOP (Continued) **1000406952**

Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0
Year:	1998
Carbon Monoxide Emissions Tons/Yr:	1
Air Basin:	SF
Facility ID:	7150
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	1
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0
Year:	1999
Carbon Monoxide Emissions Tons/Yr:	1
Air Basin:	SF
Facility ID:	7150
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	1
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0
Year:	2000
Carbon Monoxide Emissions Tons/Yr:	1
Air Basin:	SF
Facility ID:	7150
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	1
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0
Year:	2001
Carbon Monoxide Emissions Tons/Yr:	1
Air Basin:	SF

KEITH S BODY SHOP (Continued) **1000406952**

Facility ID:	7150
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	1
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2002
Carbon Monoxide Emissions Tons/Yr:	1
Air Basin:	SF
Facility ID:	7150
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	1
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2003
Carbon Monoxide Emissions Tons/Yr:	1
Air Basin:	SF
Facility ID:	7150
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	1
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2004
Carbon Monoxide Emissions Tons/Yr:	1
Air Basin:	SF
Facility ID:	7150
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported

KEITH S BODY SHOP (Continued) **1000406952**

Total Organic Hydrocarbon Gases Tons/Yr:	0.99
Reactive Organic Gases Tons/Yr:	0.8108973
Carbon Monoxide Emissions Tons/Yr:	0.008
NOX - Oxides of Nitrogen Tons/Yr:	0.032
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0.001
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0.000574
Year:	2005
Carbon Monoxide Emissions Tons/Yr:	1
Air Basin:	SF
Facility ID:	7150
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.971
Reactive Organic Gases Tons/Yr:	.7968797
Carbon Monoxide Emissions Tons/Yr:	.006
NOX - Oxides of Nitrogen Tons/Yr:	.024
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	.001
Part. Matter 10 Micrometers & Smllr Tons/Yr:	.000574

9
NE
< 1/8
43 ft.

MISSION AUTO CLINIC **EDR Historical Auto Stations** **1009012299**
25393 MISSION BLVD **N/A**
HAYWARD, CA

Relative: Higher

Actual: 68 ft.

EDR Historical Auto Stations:

Name:	MISSION AUTO CLINIC
Year:	1965
Type:	AUTOMOBILE REPAIRING

B10
NE
< 1/8
72 ft.

HAYWARD DRIVE IN CLEANERS **EDR Historical Cleaners** **1009140725**
25516 MISSION BLVD **N/A**
HAYWARD, CA

Site 6 of 8 in cluster B

Relative: Higher

Actual: 67 ft.

EDR Historical Cleaners:

Name:	HAYWARD DRIVE IN CLEANERS
Year:	1959
Type:	CLEANERS AND DYERS

B11
NE
< 1/8
75 ft.

SHANKLINS BODY SHOP
25486 MISSION BLVD
HAYWARD, CA 94544

RCRA-SQG
FINDS
HAZNET
EMI

1000316996
CAD982004830

Site 7 of 8 in cluster B

Relative:
Higher

Actual:
69 ft.

RCRA-SQG:

Date form received by agency:	09/01/1996
Facility name:	SHANKLINS BODY SHOP
Facility address:	25486 MISSION BLVD HAYWARD, CA 94544
EPA ID:	CAD982004830
Mailing address:	MISSION BLVD HAYWARD, CA 94544
Contact:	Not reported
Contact address:	Not reported Not reported
Contact country:	Not reported
Contact telephone:	Not reported
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	GIL HOHN
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	Unknown
Mixed waste (haz. and radioactive):	Unknown
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	Unknown
Furnace exemption:	Unknown

SHANKLINS BODY SHOP (Continued) **1000316996**

Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site

The NEI (National Emissions Inventory) database contains information on stationary and mobile sources that emit criteria air pollutants and their precursors, as well as hazardous air pollutants (HAPs).

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZNET:
Gepaid: CAD982004830
Contact: GREGORY GRIGGS
Telephone: 5105828130
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 25486 MISSION BLVD
Mailing City,St,Zip: HAYWARD, CA 945442523
Gen County: 1
TSD EPA ID: CAD009452657
TSD County: San Mateo
Waste Category: Unspecified solvent mixture Waste
Disposal Method: Recycler
Tons: .1167
Facility County: 1

Gepaid: CAD982004830
Contact: GREGORY GRIGGS
Telephone: 5105828130
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 25486 MISSION BLVD
Mailing City,St,Zip: HAYWARD, CA 945442523
Gen County: 1
TSD EPA ID: CAD009452657
TSD County: San Mateo
Waste Category: Not reported
Disposal Method: Recycler
Tons: .0000
Facility County: 1

SHANKLINS BODY SHOP (Continued) **1000316996**

Gepaid:	CAD982004830
Contact:	GREGORY GRIGGS
Telephone:	5105828130
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	25486 MISSION BLVD
Mailing City,St,Zip:	HAYWARD, CA 945442523
Gen County:	1
TSD EPA ID:	CAD009452657
TSD County:	San Mateo
Waste Category:	Unspecified solvent mixture Waste
Disposal Method:	Recycler
Tons:	.0958
Facility County:	1

Gepaid:	CAD982004830
Contact:	GREGORY GRIGGS/OWNER
Telephone:	5105828130
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	25486 MISSION BLVD
Mailing City,St,Zip:	HAYWARD, CA 945442523
Gen County:	Alameda
TSD EPA ID:	Not reported
TSD County:	San Mateo
Waste Category:	Unspecified solvent mixture Waste
Disposal Method:	Recycler
Tons:	0.02
Facility County:	Not reported

Gepaid:	CAD982004830
Contact:	GREGORY GRIGGS
Telephone:	5105828130
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	25486 MISSION BLVD
Mailing City,St,Zip:	HAYWARD, CA 945442523
Gen County:	1
TSD EPA ID:	CAD009452657
TSD County:	San Mateo
Waste Category:	Unspecified solvent mixture Waste
Disposal Method:	Recycler
Tons:	.1918
Facility County:	1

Click this hyperlink while viewing on your computer to access
4 additional CA_HAZNET: record(s) in the EDR Site Report.

EMI:

Year:	1995
Carbon Monoxide Emissions Tons/Yr:	1
Air Basin:	SF
Facility ID:	8143
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported

SHANKLINS BODY SHOP (Continued) **1000316996**

Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	1
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1996
Carbon Monoxide Emissions Tons/Yr:	1
Air Basin:	SF
Facility ID:	8143
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1997
Carbon Monoxide Emissions Tons/Yr:	1
Air Basin:	SF
Facility ID:	8143
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1998
Carbon Monoxide Emissions Tons/Yr:	1
Air Basin:	SF
Facility ID:	8143
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	1
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0

SHANKLINS BODY SHOP (Continued) **1000316996**

Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0
Year:	1999
Carbon Monoxide Emissions Tons/Yr:	1
Air Basin:	SF
Facility ID:	8143
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	1
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0
Year:	2000
Carbon Monoxide Emissions Tons/Yr:	1
Air Basin:	SF
Facility ID:	8143
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	1
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0
Year:	2001
Carbon Monoxide Emissions Tons/Yr:	1
Air Basin:	SF
Facility ID:	8143
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0
Year:	2002
Carbon Monoxide Emissions Tons/Yr:	1
Air Basin:	SF

SHANKLINS BODY SHOP (Continued) **1000316996**

Facility ID:	8143
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2003
Carbon Monoxide Emissions Tons/Yr:	1
Air Basin:	SF
Facility ID:	8143
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2004
Carbon Monoxide Emissions Tons/Yr:	1
Air Basin:	SF
Facility ID:	8143
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.426
Reactive Organic Gases Tons/Yr:	0.420048
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

B12 **KEITH S BODY SHOP** **EDR Historical Auto Stations** **1009012201**
NE **25486 MISSION BLVD** **N/A**
< 1/8 **HAYWARD, CA**
75 ft.

Site 8 of 8 in cluster B

Relative: Higher

Actual: 69 ft.

EDR Historical Auto Stations:

Name:	KEITH S BODY SHOP
Year:	1965
Type:	AUTOMOBILE REPAIRING

C13 **AHLGREN AUTOMOTIVE** **EDR Historical Auto Stations** **1009011601**
NE **25336 MISSION BLVD** **N/A**
< 1/8 **HAYWARD, CA**
100 ft.

Site 1 of 2 in cluster C

Relative: Higher

Actual: 68 ft.

EDR Historical Auto Stations:

Name:	HERNANDEZ SERVICE
Year:	1959
Type:	GASOLINE STATIONS
Name:	TIP TOP AUTO REPAIR
Year:	1970
Type:	AUTOMOBILE REPAIRING
Name:	AHLGREN AUTOMOTIVE
Year:	1976
Type:	AUTOMOBILE REPAIRING
Name:	OSCAR AUTOMOTIVE (OSCAR NOREO)
Year:	1976
Type:	AUTOMOBILE REPAIRING
Name:	TIP TOP AUTO REPAIR
Year:	1976
Type:	AUTOMOBILE REPAIRING

C14 **MENEZE PROPERTY** **LUST** **S101293596**
NE **25336 MISSION BLVD** **Cortese** **N/A**
< 1/8 **HAYWARD, CA 94544** **SWEEPS UST**
100 ft.

Site 2 of 2 in cluster C

Relative: Higher

Actual: 68 ft.

LUST:

Region:	STATE
Case Type:	Other ground water affected
Cross Street:	BERRY ST
Enf Type:	F
Funding:	Not reported
How Discovered:	Tank Closure
How Stopped:	Not reported
Leak Cause:	UNK
Leak Source:	UNK
Global Id:	T0600101717
Stop Date:	1993-12-20 00:00:00
Confirm Leak:	1993-12-20 00:00:00
Workplan:	1994-02-16 00:00:00

MENEZE PROPERTY (Continued) **S101293596**

Prelim Assess: Not reported
Pollution Char: Not reported
Remed Plan: Not reported
Remed Action: Not reported
Monitoring: Not reported
Close Date: 1998-05-11 00:00:00
Discover Date: 1993-12-20 00:00:00
Enforcement Dt: Not reported
Release Date: 1994-01-26 00:00:00
Review Date: 1999-01-06 00:00:00
Enter Date: 1994-02-22 00:00:00
MTBE Date: 1999-09-30 00:00:00
GW Qualifier: Not reported
Soil Qualifier: Not reported
Max MTBE GW ppb: 0
Max MTBE Soil ppb: Not reported
County: 01
Org Name: Not reported
Reg Board: San Francisco Bay Region
Status: Case Closed
Chemical: Mineral Spirits
Contact Person: Not reported
Responsible Party: BLANK RP
RP Address: Not reported
Interim: Yes
Oversight Prgm: LUST
MTBE Class: Not reported
MTBE Conc: 1
MTBE Fuel: 0
MTBE Tested: MTBE Detected. Site tested for MTBE and MTBE detected
Staff: Not reported
Staff Initials: DMG
Lead Agency: Local Agency
Local Agency: 01003
Hydr Basin #: Alameda East Bay (2-
Beneficial: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: No
Local Case #: 01-1851
Case Number: 01-1851
Qty Leaked: Not reported
Abate Method: Excavate and Dispose - remove contaminated soil and dispose in approved site
Operator: Not reported
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported
Summary: CURRENT MTBE DATE: 9/30/99. CC PER RWQCB--5/11/98.

LUST:
Region: 2
Facility Status: Case Closed
Facility Id: 01-1851
Case Number: 01-1851

MENEZE PROPERTY (Continued) **S101293596**

How Discovered: Tank Closure
Leak Cause: UNK
Leak Source: UNK
Date Leak Confirmed: 12/20/1993
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: 2/16/1994
Preliminary Site Assesment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

Cortese:
Region: CORTESE
Facility Addr2: 25336 MISSION BLVD

SWEEPS UST:
Status: Not reported
Comp Number: 111
Number: Not reported
Board Of Equalization: Not reported
Ref Date: Not reported
Act Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: 01-003-000111-000003
Actv Date: Not reported
Capacity: 750
Tank Use: M.V. FUEL
Stg: PRODUCT
Content: LEADED
Number Of Tanks: 5

Status: Not reported
Comp Number: 111
Number: Not reported
Board Of Equalization: Not reported
Ref Date: Not reported
Act Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: 01-003-000111-000004
Actv Date: Not reported
Capacity: 750
Tank Use: OIL
Stg: WASTE
Content: WASTE OIL
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 111
Number: Not reported
Board Of Equalization: Not reported
Ref Date: Not reported

MENEZE PROPERTY (Continued) **S101293596**

Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	01-003-000111-000005
Actv Date:	Not reported
Capacity:	750
Tank Use:	OIL
Stg:	WASTE
Content:	WASTE OIL
Number Of Tanks:	Not reported
Status:	Not reported
Comp Number:	111
Number:	Not reported
Board Of Equalization:	Not reported
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	01-003-000111-000111
Actv Date:	Not reported
Capacity:	5000
Tank Use:	M.V. FUEL
Stg:	PRODUCT
Content:	LEADED
Number Of Tanks:	Not reported
Status:	Not reported
Comp Number:	111
Number:	Not reported
Board Of Equalization:	Not reported
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	01-003-000111-011102
Actv Date:	Not reported
Capacity:	5000
Tank Use:	M.V. FUEL
Stg:	PRODUCT
Content:	LEADED
Number Of Tanks:	Not reported

D15 **COOPER MOTOR CO** **EDR Historical Auto Stations** **1009015582**
SE **25601 MISSION BLVD** **N/A**
< 1/8 **HAYWARD, CA**
120 ft.

Site 1 of 4 in cluster D

Relative: Higher

EDR Historical Auto Stations:

Name:	COOPER MOTOR CO
Year:	1976
Type:	AUTOMOBILE REPAIRING

Actual: 65 ft.

D16 **HAYWARD DATSUN CHRYSLER PLY.** **HIST UST** **U001597773**
SE **25601 MISSION BLVD** **N/A**
< 1/8 **HAYWARD, CA 94560**
120 ft.

Site 2 of 4 in cluster D

Relative: Higher

Actual: 65 ft.

HIST UST:

Region:	STATE
Facility ID:	00000010731
Facility Type:	Other
Other Type:	AUTO DEALER
Total Tanks:	0002
Contact Name:	JIM CAPLEY
Telephone:	4155384610
Owner Name:	D.P. TEVES
Owner Address:	25601 MISSION BLD
Owner City,St,Zip:	HAYWARD, CA 94544
Tank Num:	001
Container Num:	2
Year Installed:	1964
Tank Capacity:	00000550
Tank Used for:	WASTE
Type of Fuel:	WASTE OIL
Tank Construction:	Not reported
Leak Detection:	Visual, None
Tank Num:	002
Container Num:	1
Year Installed:	1964
Tank Capacity:	00001000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Tank Construction:	Not reported
Leak Detection:	Visual, None

D17 **HAYWARD DODGE CHRYSLER PLYMOUTH** **RCRA-SQG** **1000435179**
SE **25601 MISSION BLVD** **FINDS** **CAD981443302**
< 1/8 **HAYWARD, CA 94544** **HAZNET**
120 ft.

Site 3 of 4 in cluster D

Relative: Higher

Actual: 65 ft.

RCRA-SQG:

Date form received by agency:	09/01/1996
Facility name:	HAYWARD DODGE CHRYSLER PLYMOUTH
Facility address:	25601 MISSION BLVD HAYWARD, CA 94544
EPA ID:	CAD981443302
Contact:	Not reported
Contact address:	Not reported Not reported
Contact country:	Not reported
Contact telephone:	Not reported
Contact email:	Not reported
EPA Region:	09
Land type:	Private
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous

HAYWARD DODGE CHRYSLER PLYMOUTH (Continued) **1000435179**

waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	TASHA CORP
Owner/operator address:	4074 EGGERS
	FREMONT, CA 94536
Owner/operator country:	Not reported
Owner/operator telephone:	(510) 791-0890
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported
Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED
	NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	Unknown
Mixed waste (haz. and radioactive):	Unknown
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	Unknown
Furnace exemption:	Unknown
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No
Off-site waste receiver:	Commercial status unknown

Historical Generators:

Date form received by agency:	03/09/1992
Facility name:	HAYWARD DODGE CHRYSLER PLYMOUTH
Classification:	Large Quantity Generator
Violation Status:	No violations found

Evaluation Action Summary:

Evaluation date:	10/13/1993
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	Not reported
Date achieved compliance:	Not reported
Evaluation lead agency:	State Contractor/Grantee

HAYWARD DODGE CHRYSLER PLYMOUTH (Continued) **1000435179**

Evaluation date: 12/11/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

FINDS:
Other Pertinent Environmental Activity Identified at Site

California - Hazardous Waste Tracking System - Datamart

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZNET:
Gepaid: CAD981443302
Contact: HAYWARD DODGE
Telephone: 5105384433
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 25601 MISSION BLVD
Mailing City,St,Zip: HAYWARD, CA 945442526
Gen County: 1
TSD EPA ID: CAD009452657
TSD County: San Mateo
Waste Category: Unspecified organic liquid mixture
Disposal Method: Recycler
Tons: 5.1291
Facility County: 1

Gepaid: CAD981443302
Contact: JIM GARCIA-SERVICE MANAGER
Telephone: 5105384433
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 25601 MISSION BLVD
Mailing City,St,Zip: HAYWARD, CA 945442526
Gen County: Alameda
TSD EPA ID: CAD009452657
TSD County: San Mateo
Waste Category: Unspecified organic liquid mixture
Disposal Method: Not reported
Tons: 0.31
Facility County: Not reported

Gepaid: CAD981443302
Contact: HAYWARD DODGE
Telephone: 5105384433
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 25601 MISSION BLVD
Mailing City,St,Zip: HAYWARD, CA 945442526

HAYWARD DODGE CHRYSLER PLYMOUTH (Continued) **1000435179**

Gen County: 1
TSD EPA ID: CAD009452657
TSD County: San Mateo
Waste Category: Unspecified organic liquid mixture
Disposal Method: Recycler
Tons: 3.6487
Facility County: 1

Gepaid: CAD981443302
Contact: HAYWARD DODGE
Telephone: 5105384433
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 25601 MISSION BLVD
Mailing City,St,Zip: HAYWARD, CA 945442526
Gen County: 1
TSD EPA ID: CAD093459485
TSD County: Fresno
Waste Category: Unspecified solvent mixture Waste
Disposal Method: Not reported
Tons: .0208
Facility County: 1

Gepaid: CAD981443302
Contact: HAYWARD DODGE
Telephone: 5105384433
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 25601 MISSION BLVD
Mailing City,St,Zip: HAYWARD, CA 945442526
Gen County: 1
TSD EPA ID: CAD093459485
TSD County: Fresno
Waste Category: Unspecified solvent mixture Waste
Disposal Method: Transfer Station
Tons: .2541
Facility County: 1

Click this hyperlink while viewing on your computer to access
38 additional CA_HAZNET: record(s) in the EDR Site Report.

D18 **HAYWARD DODGE INC** **LUST S101624050**
SE **25601 MISSION BLVD** **Cortese N/A**
< 1/8 **HAYWARD, CA 94544** **CA FID UST**
120 ft. **SWEEPS UST**

Site 4 of 4 in cluster D

Relative: Higher

Actual: 65 ft.

LUST:
Region: STATE
Case Type: O, S
Cross Street: Not reported
Enf Type: F
Funding: Not reported
How Discovered: Tank Closure
How Stopped: Not reported
Leak Cause: Corrosion
Leak Source: Tank
Global Id: T0600101683

HAYWARD DODGE INC (Continued) **S101624050**

Stop Date:	1993-04-20 00:00:00
Confirm Leak:	1993-08-17 00:00:00
Workplan:	Not reported
Prelim Assess:	Not reported
Pollution Char:	Not reported
Remed Plan:	Not reported
Remed Action:	Not reported
Monitoring:	Not reported
Close Date:	Not reported
Discover Date:	1993-04-20 00:00:00
Enforcement Dt:	Not reported
Release Date:	1993-06-14 00:00:00
Review Date:	1999-05-28 00:00:00
Enter Date:	1993-08-17 00:00:00
MTBE Date:	Not reported
GW Qualifier:	Not reported
Soil Qualifier:	Not reported
Max MTBE GW ppb:	Not reported
Max MTBE Soil ppb:	Not reported
County:	01
Org Name:	Not reported
Reg Board:	San Francisco Bay Region
Status:	Leak being confirmed
Chemical:	Waste Oil
Contact Person:	Not reported
Responsible Party:	RICHARD LANZONE
RP Address:	1450 W. LONG LARD ROAD, SUITE 280
Interim:	No
Oversight Prgm:	LUST
MTBE Class:	*
MTBE Conc:	0
MTBE Fuel:	0
MTBE Tested:	Not Required to be Tested.
Staff:	Not reported
Staff Initials:	DMG
Lead Agency:	Local Agency
Local Agency:	01003
Hydr Basin #:	Alameda East Bay (2-
Beneficial:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	No
Local Case #:	01-1817
Case Number:	01-1817
Qty Leaked:	Not reported
Abate Method:	No Action Taken - no action has as yet been taken at the site
Operator:	Not reported
Water System Name:	Not reported
Well Name:	Not reported
Distance To Lust:	0
Waste Discharge Global ID:	Not reported
Waste Disch Assigned Name:	Not reported
Summary:	MAXSOIL TOG. 7700 PPM TRPH IN SOIL.

LUST:

Region:	2
Facility Status:	Leak being confirmed

HAYWARD DODGE INC (Continued) **S101624050**

Facility Id: 01-1817
Case Number: 01-1817
How Discovered: Tank Closure
Leak Cause: Corrosion
Leak Source: Tank
Date Leak Confirmed: 8/17/1993
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

Cortese:
Region: CORTESE
Facility Addr2: 25601 MISSION BLVD

CA FID UST:
Facility ID: 01002881
Regulated By: UTNKA
Regulated ID: 00010731
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 4155384610
Mail To: Not reported
Mailing Address: 25601 MISSION BLVD
Mailing Address 2: Not reported
Mailing City,St,Zip: HAYWARD 94560
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

SWEEPS UST:
Status: Not reported
Comp Number: 10731
Number: Not reported
Board Of Equalization: 44-037021
Ref Date: Not reported
Act Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: 01-003-010731-000001
Actv Date: Not reported
Capacity: 550
Tank Use: OIL
Stg: WASTE
Content: WASTE OIL
Number Of Tanks: 2

Status: Not reported

HAYWARD DODGE INC (Continued) **S101624050**

Comp Number:	10731
Number:	Not reported
Board Of Equalization:	44-037021
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	01-003-010731-000002
Actv Date:	Not reported
Capacity:	1000
Tank Use:	M.V. FUEL
Stg:	PRODUCT
Content:	REG UNLEADED
Number Of Tanks:	Not reported

19
South
< 1/8
149 ft.

Relative:
Lower

Actual:
61 ft.

WILMAS COLLISION REPAIR
25571 DOLLAR STREET
HAYWARD, CA 94544

RCRA-SQG **1000296466**
FINDS **CAD982462137**
HAZNET
CA FID UST
SWEEPS UST

RCRA-SQG:

Date form received by agency:	12/31/1988
Facility name:	WILMAS COLLISION REPAIR
Facility address:	25571 DOLLAR STREET HAYWARD, CA 94544
EPA ID:	CAD982462137
Contact:	ENVIRONMENTAL MANAGER
Contact address:	25571 DOLLAR STREET HAYWARD, CA 94544
Contact country:	US
Contact telephone:	(415) 881-0106
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported
Owner/operator name:	WILMA JOHN
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported

WILMAS COLLISION REPAIR (Continued) **1000296466**

Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: Unknown
Mixed waste (haz. and radioactive): Unknown
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: Unknown
Furnace exemption: Unknown
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site

California - Hazardous Waste Tracking System - Datamart

The NEI (National Emissions Inventory) database contains information on stationary and mobile sources that emit criteria air pollutants and their precursors, as well as hazardous air pollutants (HAPs).

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZNET:
Gepaid: CAD982462137
Contact: JOHN WILMA
Telephone: 5108810106
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 25571 DOLLAR ST
Mailing City,St,Zip: HAYWARD, CA 945440000
Gen County: 1
TSD EPA ID: FLD980711071
TSD County: 99
Waste Category: Unspecified solvent mixture Waste
Disposal Method: Recycler
Tons: .5838

WILMAS COLLISION REPAIR (Continued) **1000296466**

Facility County: 1

Gepaid: CAD982462137
Contact: JOHN WILMA
Telephone: 5108810106
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 25571 DOLLAR ST
Mailing City,St,Zip: HAYWARD, CA 945440000
Gen County: 1
TSD EPA ID: CAD008252405
TSD County: Los Angeles
Waste Category: Unspecified solvent mixture Waste
Disposal Method: Recycler
Tons: .5003
Facility County: 1

Gepaid: CAD982462137
Contact: JOHN WILMA
Telephone: 5108810106
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 25571 DOLLAR ST
Mailing City,St,Zip: HAYWARD, CA 945440000
Gen County: 1
TSD EPA ID: OHD083377010
TSD County: 0
Waste Category: Unspecified solvent mixture Waste
Disposal Method: Not reported
Tons: .5838
Facility County: 1

Gepaid: CAD982462137
Contact: JOHN WILMA
Telephone: 5108810106
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 25571 DOLLAR ST
Mailing City,St,Zip: HAYWARD, CA 945440000
Gen County: 1
TSD EPA ID: FLD980711071
TSD County: 99
Waste Category: Unspecified solvent mixture Waste
Disposal Method: Recycler
Tons: .0750
Facility County: 1

Gepaid: CAD982462137
Contact: JOHN WILMA
Telephone: 5108810106
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 25571 DOLLAR ST
Mailing City,St,Zip: HAYWARD, CA 945440000
Gen County: 1
TSD EPA ID: CAT080022148
TSD County: San Bernardino

WILMAS COLLISION REPAIR (Continued) **1000296466**

Waste Category: Unspecified solvent mixture Waste
Disposal Method: Transfer Station
Tons: .4170
Facility County: 1

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13 additional CA_HAZNET: record(s) in the EDR Site Report.

CA FID UST:
Facility ID: 01002298
Regulated By: UTNKI
Regulated ID: 987462137
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 5108810106
Mail To: Not reported
Mailing Address: 25571 DOLLAR ST
Mailing Address 2: Not reported
Mailing City,St,Zip: HAYWARD 94544
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Inactive

SWEEPS UST:
Status: Not reported
Comp Number: 647
Number: Not reported
Board Of Equalization: 44-034593
Ref Date: Not reported
Act Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: 01-003-000647-000001
Actv Date: Not reported
Capacity: 1000
Tank Use: M.V. FUEL
Stg: PRODUCT
Content: REG UNLEADED
Number Of Tanks: 2

Status: Not reported
Comp Number: 647
Number: Not reported
Board Of Equalization: 44-034593
Ref Date: Not reported
Act Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: 01-003-000647-000002
Actv Date: Not reported

WILMAS COLLISION REPAIR (Continued) **1000296466**

Capacity: 1000
Tank Use: M.V. FUEL
Stg: PRODUCT
Content: REG UNLEADED
Number Of Tanks: Not reported

E20
NNW
< 1/8
318 ft.

Relative:
Higher

Actual:
71 ft.

ARCO #09536 THRIFTY OIL CO/BPWEST **UST** **U003776499**
25225 MISSION BLVD **N/A**
HAYWARD, CA 94544

Site 1 of 7 in cluster E

UST:
Local Agency: Hayward, Alameda County
Facility ID: 01-003-006149

E21
NNW
< 1/8
318 ft.

Relative:
Higher

Actual:
71 ft.

THRIFTY OIL STN. #055 **HIST UST** **U001597010**
25225 MISSION BLVD **N/A**
HAYWARD, CA 94541

Site 2 of 7 in cluster E

HIST UST:
Region: STATE
Facility ID: 00000006149
Facility Type: Gas Station
Other Type: Not reported
Total Tanks: 0005
Contact Name: Not reported
Telephone: 2139239876
Owner Name: THRIFTY OIL CO.
Owner Address: 10000 LAKEWOOD BLVD.
Owner City,St,Zip: DOWNEY, CA 90240

Tank Num: 001
Container Num: 055-1
Year Installed: 1982
Tank Capacity: 00012000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Tank Construction: .350 inches
Leak Detection: Stock Inventor

Tank Num: 002
Container Num: 055-2
Year Installed: 1982
Tank Capacity: 00015000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: .4125 inches
Leak Detection: Stock Inventor

Tank Num: 003
Container Num: 055-3
Year Installed: 1982
Tank Capacity: 00012000

THRIFTY OIL STN. #055 (Continued) **U001597010**

Tank Used for:	PRODUCT
Type of Fuel:	PREMIUM
Tank Construction:	.350 inches
Leak Detection:	Stock Inventor
Tank Num:	004
Container Num:	055-10
Year Installed:	Not reported
Tank Capacity:	00000280
Tank Used for:	WASTE
Type of Fuel:	WASTE OIL
Tank Construction:	12 gauge
Leak Detection:	Stock Inventor
Tank Num:	005
Container Num:	055-11
Year Installed:	Not reported
Tank Capacity:	00000000
Tank Used for:	WASTE
Type of Fuel:	Not reported
Tank Construction:	Not reported
Leak Detection:	Visual

E22 **THRIFTY OIL STN. #055** **HAZNET S101623665**
NNW **25225 MISSION BLVD** **CA FID UST N/A**
< 1/8 **HAYWARD, CA 94541** **SWEEPS UST**
318 ft.

Site 3 of 7 in cluster E

Relative: Higher

Actual: 71 ft.

HAZNET:

Gepaid:	CAL920813895
Contact:	THRIFTY OIL CO
Telephone:	3109239876
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	10000 LAKEWOOD BLVD
Mailing City,St,Zip:	DOWNEY, CA 902404020
Gen County:	1
TSD EPA ID:	CAD980887418
TSD County:	1
Waste Category:	Waste oil and mixed oil
Disposal Method:	Recycler
Tons:	.4587
Facility County:	1
Gepaid:	CAL920813895
Contact:	THRIFTY OIL CO
Telephone:	3109239876
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	10000 LAKEWOOD BLVD
Mailing City,St,Zip:	DOWNEY, CA 902404020
Gen County:	1
TSD EPA ID:	CAD028409019
TSD County:	Los Angeles
Waste Category:	Aqueous solution with less than 10% total organic residues
Disposal Method:	Treatment, Tank
Tons:	2.0224

THRIFTY OIL STN. #055 (Continued) **S101623665**

Facility County: 1

Gepaid: CAL920813895
Contact: THRIFTY OIL CO
Telephone: 3109239876
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 10000 LAKEWOOD BLVD
Mailing City,St,Zip: DOWNEY, CA 902404020
Gen County: 1
TSD EPA ID: CAD980887418
TSD County: 1
Waste Category: Waste oil and mixed oil
Disposal Method: Recycler
Tons: .8131
Facility County: 1

Gepaid: CAL920813895
Contact: THRIFTY OIL CO
Telephone: 3109239876
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 10000 LAKEWOOD BLVD
Mailing City,St,Zip: DOWNEY, CA 902404020
Gen County: 1
TSD EPA ID: CAD980887418
TSD County: 1
Waste Category: Waste oil and mixed oil
Disposal Method: Transfer Station
Tons: 9.9454
Facility County: 1

Gepaid: CAL920813895
Contact: THRIFTY OIL CO
Telephone: 3109239876
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 10000 LAKEWOOD BLVD
Mailing City,St,Zip: DOWNEY, CA 902404020
Gen County: 1
TSD EPA ID: CAD981458466
TSD County: Los Angeles
Waste Category: Unspecified oil-containing waste
Disposal Method: Recycler
Tons: 2.0641
Facility County: 1

Click this hyperlink while viewing on your computer to access
5 additional CA_HAZNET: record(s) in the EDR Site Report.

CA FID UST:
Facility ID: 01001596
Regulated By: UTNKA
Regulated ID: 00006149
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2139239876

THRIFTY OIL STN. #055 (Continued) **S101623665**

Mail To: Not reported
Mailing Address: 10000 LAKEWOOD BLVD
Mailing Address 2: Not reported
Mailing City,St,Zip: HAYWARD 94541
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

SWEEPS UST:
Status: A
Comp Number: 6149
Number: 9
Board Of Equalization: 44-000803
Ref Date: 07-08-93
Act Date: 07-08-93
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: 55-1
Swrcb Tank Id: 01-003-006149-000001
Actv Date: 07-01-85
Capacity: 11891
Tank Use: M.V. FUEL
Stg: P
Content: LEADED
Number Of Tanks: 3

Status: A
Comp Number: 6149
Number: 9
Board Of Equalization: 44-000803
Ref Date: 07-08-93
Act Date: 07-08-93
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: 5502020702
Swrcb Tank Id: 01-003-006149-000002
Actv Date: 07-01-85
Capacity: 15112
Tank Use: M.V. FUEL
Stg: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: A
Comp Number: 6149
Number: 9
Board Of Equalization: 44-000803
Ref Date: 07-08-93
Act Date: 07-08-93
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: 5501040720
Swrcb Tank Id: 01-003-006149-000003

THRIFTY OIL STN. #055 (Continued) **S101623665**

Actv Date:	07-01-85
Capacity:	11891
Tank Use:	M.V. FUEL
Stg:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported
Status:	Not reported
Comp Number:	6149
Number:	Not reported
Board Of Equalization:	44-000803
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	01-003-006149-000004
Actv Date:	Not reported
Capacity:	550
Tank Use:	OIL
Stg:	WASTE
Content:	WASTE OIL
Number Of Tanks:	1

E23
NNW
< 1/8
318 ft.

Relative: Higher

Actual: 71 ft.

THRIFTY OIL **HAZNET S103950805**
25225 MISSION BLVD **LUST N/A**
HAYWARD, CA 94541 **Cortese**

Site 4 of 7 in cluster E

HAZNET:

Gepaid:	CAL000244459
Contact:	JACK OMAN WASTE SPECIALIST
Telephone:	7146703958
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	PO BOX 80249
Mailing City,St,Zip:	RCHO STA MARG, CA 926880000
Gen County:	Alameda
TSD EPA ID:	CAT080013352
TSD County:	Los Angeles
Waste Category:	Aqueous solution with less than 10% total organic residues
Disposal Method:	Recycler
Tons:	0.2
Facility County:	Not reported
Gepaid:	CAL000161631
Contact:	CARLOS RODRIQUEZ
Telephone:	7146705402
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	PO BOX 6038
Mailing City,St,Zip:	ARTESIA, CA 907026038
Gen County:	Alameda
TSD EPA ID:	Not reported
TSD County:	Los Angeles
Waste Category:	Aqueous solution with less than 10% total organic residues
Disposal Method:	Recycler

THRIFTY OIL (Continued) **S103950805**

Tons: 0.2
Facility County: Not reported

Gepaid: CAL000244459
Contact: JACK OMAN WASTE SPECIALIST
Telephone: 7146703958
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: PO BOX 80249
Mailing City,St,Zip: RCHO STA MARG, CA 926880000
Gen County: Alameda
TSD EPA ID: CAT080013352
TSD County: Los Angeles
Waste Category: Aqueous solution with less than 10% total organic residues
Disposal Method: H13
Tons: 0.12
Facility County: 1

Gepaid: CAL000161631
Contact: ARCO PRODUCTS COMPANY
Telephone: 0000000000
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: PO BOX 6038
Mailing City,St,Zip: ARTESIA, CA 907026038
Gen County: 1
TSD EPA ID: CAL000161743
TSD County: Santa Clara
Waste Category: Unspecified oil-containing waste
Disposal Method: Transfer Station
Tons: 2.7105
Facility County: 1

Gepaid: CAL000161631
Contact: ARCO PRODUCTS COMPANY
Telephone: 0000000000
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: PO BOX 6038
Mailing City,St,Zip: ARTESIA, CA 907026038
Gen County: 1
TSD EPA ID: CAD009466392
TSD County: 7
Waste Category: Other empty containers 30 gallons or more
Disposal Method: Recycler
Tons: 16.0000
Facility County: 1

Click this hyperlink while viewing on your computer to access
6 additional CA_HAZNET: record(s) in the EDR Site Report.

LUST:
Region: STATE
Case Type: Other ground water affected
Cross Street: Not reported
Enf Type: F
Funding: Not reported

THRIFTY OIL (Continued) **S103950805**

How Discovered:	Tank Closure
How Stopped:	Not reported
Leak Cause:	Structure Failure
Leak Source:	Tank
Global Id:	T0600101364
Stop Date:	1986-08-20 00:00:00
Confirm Leak:	Not reported
Workplan:	Not reported
Prelim Assess:	1986-08-06 00:00:00
Pollution Char:	1989-02-06 00:00:00
Remed Plan:	2001-01-16 00:00:00
Remed Action:	Not reported
Monitoring:	Not reported
Close Date:	2001-10-22 00:00:00
Discover Date:	1986-08-20 00:00:00
Enforcement Dt:	Not reported
Release Date:	1986-08-20 00:00:00
Review Date:	2001-08-02 00:00:00
Enter Date:	1987-08-20 00:00:00
MTBE Date:	2001-08-29 00:00:00
GW Qualifier:	=
Soil Qualifier:	Not reported
Max MTBE GW ppb:	7
Max MTBE Soil ppb:	Not reported
County:	01
Org Name:	Not reported
Reg Board:	San Francisco Bay Region
Status:	Case Closed
Chemical:	Gasoline
Contact Person:	Not reported
Responsible Party:	BLANK RP
RP Address:	Not reported
Interim:	Yes
Oversight Prgm:	LUST
MTBE Class:	Not reported
MTBE Conc:	2
MTBE Fuel:	1
MTBE Tested:	MTBE Detected. Site tested for MTBE and MTBE detected
Staff:	Not reported
Staff Initials:	DMG
Lead Agency:	Local Agency
Local Agency:	01003
Hydr Basin #:	Alameda East Bay (2-
Beneficial:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	No
Local Case #:	01-1477
Case Number:	01-1477
Qty Leaked:	Not reported
Abate Method:	Remove Free Product - remove floating product from water table
Operator:	Not reported
Water System Name:	Not reported
Well Name:	Not reported
Distance To Lust:	0
Waste Discharge Global ID:	Not reported
Waste Disch Assigned Name:	Not reported

THRIFTY OIL (Continued) **S103950805**

Summary: LETTER REQ SUBMITTAL OF WP TO CITY OF HAYWARD-9/4/96. CURRENT MTBE DATE 6/28/01. REQUESTING CASE CLOSURE 1/16/01.

LUST:
Region: 2
Facility Status: Case Closed
Facility Id: 01-1477
Case Number: 01-1477
How Discovered: Tank Closure
Leak Cause: Structure Failure
Leak Source: Tank
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 8/6/1986
Pollution Characterization Began: 2/6/1989
Pollution Remediation Plan Submitted: 1/16/2001
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

Cortese:
Region: CORTESE
Facility Addr2: 25225 MISSION BLVD

E24 **TOM S GULF SERVICE** **EDR Historical Auto Stations** **1009011796**
NNW **25225 MISSION BLVD** **N/A**
< 1/8 **HAYWARD, CA**
324 ft.

Site 5 of 7 in cluster E

Relative: Higher

EDR Historical Auto Stations:
Name: TOM S WILSHIRE
Actual: 71 ft. Year: 1959
Type: GASOLINE STATIONS

Name: TOM S WILSHIRE
Year: 1965
Type: GASOLINE STATIONS

Name: TOM S GULF SERVICE
Year: 1970
Type: GASOLINE STATIONS

E25 **FOREIGN CAR SPECIALISTS** **EDR Historical Auto Stations** **1009122949**
NNW **25224 MISSION BLVD** **N/A**
< 1/8 **HAYWARD, CA**
337 ft.

Site 6 of 7 in cluster E

Relative: Higher

EDR Historical Auto Stations:
Name: FOREIGN CAR SPECIALISTS
Actual: 71 ft. Year: 1976
Type: AUTOMOBILE REPAIRING

E26
NNW
< 1/8
382 ft.

Relative:
Higher

Actual:
71 ft.

BERRY AVENUE AUTOMOTIVE SERVICE
773 BERRY AVE
HAYWARD, CA

EDR Historical Auto Stations **1009012300**
N/A

Site 7 of 7 in cluster E

EDR Historical Auto Stations:

Name:	MONTGOMERY & SAINT ANGELO AUTO REPAIR
Year:	1965
Type:	AUTOMOBILE REPAIRING
Name:	BERRY AVENUE AUTOMOTIVE SERVICE
Year:	1970
Type:	AUTOMOBILE REPAIRING

F27
SE
< 1/8
541 ft.

Relative:
Higher

Actual:
69 ft.

MAURY COX VANS
25700 MISSION BLVD
HAYWARD, CA 94544

LUST **S101306542**
Cortese **N/A**

Site 1 of 2 in cluster F

LUST:

Region:	STATE
Case Type:	O, S
Cross Street:	Not reported
Enf Type:	F
Funding:	Not reported
How Discovered:	Tank Closure
How Stopped:	Not reported
Leak Cause:	Structure Failure
Leak Source:	Tank
Global Id:	T0600100874
Stop Date:	1987-06-11 00:00:00
Confirm Leak:	Not reported
Workplan:	Not reported
Prelim Assess:	1985-03-12 00:00:00
Pollution Char:	Not reported
Remed Plan:	Not reported
Remed Action:	Not reported
Monitoring:	Not reported
Close Date:	Not reported
Discover Date:	1987-06-11 00:00:00
Enforcement Dt:	Not reported
Release Date:	1987-06-11 00:00:00
Review Date:	1990-06-27 00:00:00
Enter Date:	1987-06-11 00:00:00
MTBE Date:	Not reported
GW Qualifier:	Not reported
Soil Qualifier:	Not reported
Max MTBE GW ppb:	Not reported
Max MTBE Soil ppb:	Not reported
County:	01
Org Name:	Not reported
Reg Board:	San Francisco Bay Region
Status:	Preliminary site assessment underway
Chemical:	Misc. Motor Vehicle Fuels
Contact Person:	Not reported
Responsible Party:	BLANK RP
RP Address:	Not reported
Interim:	No

MAURY COX VANS (Continued) **S101306542**

Oversight Prgm: LUST
MTBE Class: *
MTBE Conc: 0
MTBE Fuel: 0
MTBE Tested: Not Required to be Tested.
Staff: Not reported
Staff Initials: DMG
Lead Agency: Local Agency
Local Agency: 01003
Hydr Basin #: Alameda East Bay (2·
Beneficial: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: No
Local Case #: 01-0949
Case Number: 01-0949
Qty Leaked: Not reported
Abate Method: No Action Taken - no action has as yet been taken at the site
Operator: Not reported
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported
Summary: Not reported

LUST:
Region: 2
Facility Status: Preliminary site assessment underway
Facility Id: 01-0949
Case Number: 01-0949
How Discovered: Tank Closure
Leak Cause: Structure Failure
Leak Source: Tank
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 3/12/1985
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

Cortese:
Region: CORTESE
Facility Addr2: 25700 MISSION BLVD

F28
SSE
< 1/8
578 ft.

ALLAN MOTOR COMPANY
25715 MISSION BLVD
HAYWARD, CA 94544

RCRA-SQG
FINDS
HAZNET
EMI

1000188934
CAD981443369

Site 2 of 2 in cluster F

Relative:
Higher

Actual:
70 ft.

RCRA-SQG:

Date form received by agency:	05/17/1994
Facility name:	ALLAN MOTOR CO
Facility address:	25715 MISSION BLVD HAYWARD, CA 94544
EPA ID:	CAD981443369
Contact:	BUD ALLAN
Contact address:	25715 MISSION BLVD HAYWARD, CA 94544
Contact country:	US
Contact telephone:	(510) 581-0400
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	ROY BALDWIN
Owner/operator address:	54 572 INVERNESS LA QUINTA, CA 92253
Owner/operator country:	Not reported
Owner/operator telephone:	(510) 581-0400
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported
Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	Unknown
Mixed waste (haz. and radioactive):	Unknown
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	Unknown
Furnace exemption:	Unknown
Used oil fuel burner:	No
Used oil processor:	No

ALLAN MOTOR COMPANY (Continued) **1000188934**

User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site

California - Hazardous Waste Tracking System - Datamart

The NEI (National Emissions Inventory) database contains information on stationary and mobile sources that emit criteria air pollutants and their precursors, as well as hazardous air pollutants (HAPs).

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZNET:
Gepaid: CAD981443369
Contact: Not reported
Telephone: 0000000000
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 25715 MISSION BLVD
Mailing City,St,Zip: HAYWARD, CA 945442528
Gen County: 1
TSD EPA ID: CAD009452657
TSD County: San Mateo
Waste Category: Unspecified organic liquid mixture
Disposal Method: Recycler
Tons: 4.2117
Facility County: 1

Gepaid: CAD981443369
Contact: Not reported
Telephone: 0000000000
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 25715 MISSION BLVD
Mailing City,St,Zip: HAYWARD, CA 945442528
Gen County: 1
TSD EPA ID: CAD980887418
TSD County: 1
Waste Category: Waste oil and mixed oil
Disposal Method: Recycler
Tons: .0020
Facility County: 1

ALLAN MOTOR COMPANY (Continued) **1000188934**

Gepaid:	CAD981443369
Contact:	Not reported
Telephone:	0000000000
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	25715 MISSION BLVD
Mailing City,St,Zip:	HAYWARD, CA 945442528
Gen County:	1
TSD EPA ID:	CA0000084517
TSD County:	Sacramento
Waste Category:	Aqueous solution with less than 10% total organic residues
Disposal Method:	Transfer Station
Tons:	.0166
Facility County:	1

Gepaid:	CAD981443369
Contact:	Not reported
Telephone:	0000000000
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	25715 MISSION BLVD
Mailing City,St,Zip:	HAYWARD, CA 945442528
Gen County:	1
TSD EPA ID:	CA0000084517
TSD County:	Sacramento
Waste Category:	Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method:	Transfer Station
Tons:	.2040
Facility County:	1

Gepaid:	CAD981443369
Contact:	Not reported
Telephone:	0000000000
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	25715 MISSION BLVD
Mailing City,St,Zip:	HAYWARD, CA 945442528
Gen County:	1
TSD EPA ID:	CA0000084517
TSD County:	Sacramento
Waste Category:	Aqueous solution with less than 10% total organic residues
Disposal Method:	Treatment, Tank
Tons:	.1204
Facility County:	1

Click this hyperlink while viewing on your computer to access
49 additional CA_HAZNET: record(s) in the EDR Site Report.

EMI:

Year:	1990
Carbon Monoxide Emissions Tons/Yr:	1
Air Basin:	SF
Facility ID:	5712
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported

ALLAN MOTOR COMPANY (Continued) **1000188934**

Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	4
Reactive Organic Gases Tons/Yr:	2
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1993
Carbon Monoxide Emissions Tons/Yr:	1
Air Basin:	SF
Facility ID:	5712
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	2
Reactive Organic Gases Tons/Yr:	2
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1995
Carbon Monoxide Emissions Tons/Yr:	1
Air Basin:	SF
Facility ID:	5712
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	1
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1996
Carbon Monoxide Emissions Tons/Yr:	1
Air Basin:	SF
Facility ID:	5712
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	2
Reactive Organic Gases Tons/Yr:	1
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0

ALLAN MOTOR COMPANY (Continued) **1000188934**

Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0
Year:	1997
Carbon Monoxide Emissions Tons/Yr:	1
Air Basin:	SF
Facility ID:	5712
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	2
Reactive Organic Gases Tons/Yr:	1
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0
Year:	1998
Carbon Monoxide Emissions Tons/Yr:	1
Air Basin:	SF
Facility ID:	5712
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	5
Reactive Organic Gases Tons/Yr:	4
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0
Year:	1999
Carbon Monoxide Emissions Tons/Yr:	1
Air Basin:	SF
Facility ID:	5712
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	5
Reactive Organic Gases Tons/Yr:	4
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0
Year:	2000
Carbon Monoxide Emissions Tons/Yr:	1
Air Basin:	SF

ALLAN MOTOR COMPANY (Continued) **1000188934**

Facility ID:	5712
Air District Name:	BA
SIC Code:	7532
Air District Name:	BAY AREA AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	5
Reactive Organic Gases Tons/Yr:	4
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

G29 **VOLKSWAGEN OF HAYWARD** **RCRA-SQG** **1007264023**
NNW **25115 MISSION BLVD** **CAR000151746**
< 1/8 **HAYWARD, CA 94544**
614 ft.

Site 1 of 3 in cluster G

Relative:
Higher

Actual:
75 ft.

RCRA-SQG:

Date form received by agency:	03/15/2004
Facility name:	VOLKSWAGEN OF HAYWARD
Facility address:	25115 MISSION BLVD HAYWARD, CA 94544
EPA ID:	CAR000151746
Contact:	CHRIS NICKERSON
Contact address:	25115 MISSION BLVD HAYWARD, CA 94544
Contact country:	US
Contact telephone:	510-886-9446
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	MATT ZAHERI
Owner/operator address:	Not reported Not reported
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	02/01/2004
Owner/Op end date:	Not reported

Owner/operator name:	MATT ZAHERI
Owner/operator address:	Not reported Not reported
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Private

VOLKSWAGEN OF HAYWARD (Continued) **1007264023**

Owner/Operator Type: Operator
Owner/Op start date: 02/01/2004
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Hazardous Waste Summary:
Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D008
Waste name: LEAD

Violation Status: No violations found

G30 **SOUZA RAIDATOR SERV** **EDR Historical Auto Stations** **1009015674**
NNW **25101 MISSION BLVD** **N/A**
1/8-1/4 **HAYWARD, CA**
683 ft.

Site 2 of 3 in cluster G

Relative:
Higher

Actual:
77 ft.

EDR Historical Auto Stations:
Name: SOUZA RAIDATOR SERV
Year: 1976
Type: AUTOMOBILE REPAIRING

31
SSE
1/8-1/4
714 ft.

HAYWARD FORD FLEET SERVICE
25789 DOLLAR ST
HAYWARD, CA 94544

RCRA-SQG
FINDS

1006805306
CAR000125708

Relative:
Higher

Actual:
65 ft.

RCRA-SQG:

Date form received by agency:	06/29/2005
Facility name:	HAYWARD FORD FLEET SERVICE
Facility address:	25789 DOLLAR ST HAYWARD, CA 94544
EPA ID:	CAR000125708
Mailing address:	25501 MISSION BLVD HAYWARD, CA 94544
Contact:	ALAN L WALDIE
Contact address:	25501 MISSION BLVD HAYWARD, CA 94544
Contact country:	US
Contact telephone:	510-881-1200
Contact email:	AWALDIE@HAYWARDFORD.COM
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	HAYWARD FORD INC
Owner/operator address:	25501 MISSION BLVD HAYWARD, CA 94544
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	03/04/2003
Owner/Op end date:	Not reported
Owner/operator name:	ALAN WALDIE
Owner/operator address:	Not reported Not reported
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	06/22/2005
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No

HAYWARD FORD FLEET SERVICE (Continued) **1006805306**

Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Historical Generators:
Date form received by agency: 08/14/2002
Facility name: HAYWARD FORD FLEET SERVICE
Classification: Small Quantity Generator

Hazardous Waste Summary:
Waste code: D002
Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

Waste code: D008
Waste name: LEAD

Waste code: F001
Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLOROETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE, AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site

California - Hazardous Waste Tracking System - Datamart

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

G32
NNW
1/8-1/4
749 ft.

Relative:
Higher

Actual:
78 ft.

HAYWARD BODY SHOP
25087 MISSION BLVD
HAYWARD, CA 94544

RCRA-SQG
FINDS
HAZNET

1000435178
CAD981416233

Site 3 of 3 in cluster G

RCRA-SQG:

Date form received by agency:	06/03/1986
Facility name:	HAYWARD BODY SHOP
Facility address:	25087 MISSION BLVD HAYWARD, CA 94544
EPA ID:	CAD981416233
Contact:	ENVIRONMENTAL MANAGER
Contact address:	25087 MISSION BLVD HAYWARD, CA 94544
Contact country:	US
Contact telephone:	(415) 538-6700
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	RICHARD OGLE
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	Unknown
Mixed waste (haz. and radioactive):	Unknown
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	Unknown
Furnace exemption:	Unknown
Used oil fuel burner:	No
Used oil processor:	No

HAYWARD BODY SHOP (Continued) **1000435178**

User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site

California - Hazardous Waste Tracking System - Datamart

The NEI (National Emissions Inventory) database contains information on stationary and mobile sources that emit criteria air pollutants and their precursors, as well as hazardous air pollutants (HAPs).

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HAZNET:
Gepaid: CAD981416233
Contact: RICHARD/CINDY OGLE
Telephone: 5105386700
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 25087 MISSION BLVD
Mailing City,St,Zip: HAYWARD, CA 945442514
Gen County: 1
TSD EPA ID: CAD009452657
TSD County: San Mateo
Waste Category: Unspecified solvent mixture Waste
Disposal Method: Recycler
Tons: 1.6509
Facility County: 1

Gepaid: CAD981416233
Contact: RICHARD/CINDY OGLE
Telephone: 5105386700
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 25087 MISSION BLVD
Mailing City,St,Zip: HAYWARD, CA 945442514
Gen County: 1
TSD EPA ID: CAD009452657
TSD County: San Mateo
Waste Category: Not reported
Disposal Method: Recycler
Tons: .0000
Facility County: 1

HAYWARD BODY SHOP (Continued) **1000435178**

Gepaid:	CAD981416233
Contact:	RICHARD/CINDY OGLE
Telephone:	5105386700
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	25087 MISSION BLVD
Mailing City,St,Zip:	HAYWARD, CA 945442514
Gen County:	1
TSD EPA ID:	CAD009452657
TSD County:	San Mateo
Waste Category:	Unspecified solvent mixture Waste
Disposal Method:	Not reported
Tons:	.1209
Facility County:	1

Gepaid:	CAD981416233
Contact:	RICHARD OGLE
Telephone:	5105386700
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	25087 MISSION BLVD
Mailing City,St,Zip:	HAYWARD, CA 945442514
Gen County:	Alameda
TSD EPA ID:	Not reported
TSD County:	San Mateo
Waste Category:	Unspecified solvent mixture Waste
Disposal Method:	Recycler
Tons:	1.47
Facility County:	Not reported

Gepaid:	CAD981416233
Contact:	RICHARD/CINDY OGLE
Telephone:	5105386700
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	25087 MISSION BLVD
Mailing City,St,Zip:	HAYWARD, CA 945442514
Gen County:	1
TSD EPA ID:	CAD009452657
TSD County:	San Mateo
Waste Category:	Unspecified solvent mixture Waste
Disposal Method:	Recycler
Tons:	1.4798
Facility County:	1

Click this hyperlink while viewing on your computer to access
10 additional CA_HAZNET: record(s) in the EDR Site Report.

33
SE
1/8-1/4
788 ft.

DALBEY S BODY SHOP
25870 MISSION BLVD
HAYWARD, CA

EDR Historical Auto Stations **1009013610**
N/A

Relative:
Higher

Actual:
73 ft.

EDR Historical Auto Stations:

Name:	DALBEY S GARAGE
Year:	1959
Type:	AUTOMOBILE REPAIRING
Name:	DALBEY S BODY SHOP
Year:	1965
Type:	AUTOMOBILE REPAIRING

34
NNW
1/8-1/4
955 ft.

BOB S CAMPER & TRAILER REPAIR
25156 O NEIL AVE
HAYWARD, CA

EDR Historical Auto Stations **1009015576**
N/A

Relative:
Higher

Actual:
77 ft.

EDR Historical Auto Stations:

Name:	BOB S CAMPER & TRAILER REPAIR
Year:	1976
Type:	AUTOMOBILE REPAIRING

H35
SSE
1/8-1/4
1037 ft.

CORPORATE MOTORS
25891 MISSION BLVD
HAYWARD, CA 94544

RCRA-SQG **1000686674**
FINDS **CAD983640483**
HAZNET

Site 1 of 2 in cluster H

Relative:
Higher

Actual:
77 ft.

RCRA-SQG:

Date form received by agency:	07/10/2000
Facility name:	CORPORATE MOTORS
Facility address:	25891 MISSION BLVD HAYWARD, CA 94544
EPA ID:	CAD983640483
Mailing address:	25656 MISSION BLVD HAYWARD, CA 94544
Contact:	SAM BALANON
Contact address:	25891 MISSION BLVD HAYWARD, CA 94544
Contact country:	US
Contact telephone:	(510) 538-4444
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	ROBERT RAO
Owner/operator address:	1578 PEBBLE BEACH CT MILPITAS, CA 95035
Owner/operator country:	Not reported
Owner/operator telephone:	(408) 942-8801

CORPORATE MOTORS (Continued) **1000686674**

Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: Unknown
Mixed waste (haz. and radioactive): Unknown
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: Unknown
Furnace exemption: Unknown
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Hazardous Waste Summary:
Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZNET:
Gepaid: CAL000050038
Contact: Not reported
Telephone: 0000000000
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 25891 MISSION BLVD
Mailing City,St,Zip: HAYWARD, CA 000000000
Gen County: 1
TSD EPA ID: CAD009452657

CORPORATE MOTORS (Continued) **1000686674**

TSD County: San Mateo
Waste Category: Unspecified organic liquid mixture
Disposal Method: Not reported
Tons: .3127
Facility County: 1

Gepaid: CAL000050038
Contact: Not reported
Telephone: 0000000000
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 25891 MISSION BLVD
Mailing City,St,Zip: HAYWARD, CA 000000000
Gen County: 1
TSD EPA ID: CAD009452657
TSD County: San Mateo
Waste Category: Unspecified organic liquid mixture
Disposal Method: Recycler
Tons: 1.9598
Facility County: 1

Gepaid: CAL000071999
Contact: PAUL DOYLE C/O GO VACATIONS
Telephone: 4166741880
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 25891 MISSION BLVD
Mailing City,St,Zip: HAYWARD, CA 945440000
Gen County: 1
TSD EPA ID: CAD980887418
TSD County: 1
Waste Category: Waste oil and mixed oil
Disposal Method: Recycler
Tons: .4170
Facility County: 1

Gepaid: CAL000050038
Contact: Not reported
Telephone: 0000000000
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 25891 MISSION BLVD
Mailing City,St,Zip: HAYWARD, CA 000000000
Gen County: 1
TSD EPA ID: CAD009452657
TSD County: San Mateo
Waste Category: Unspecified organic liquid mixture
Disposal Method: Recycler
Tons: .7089
Facility County: 1

Click this hyperlink while viewing on your computer to access
-1 additional CA_HAZNET: record(s) in the EDR Site Report.

H36
SSE
1/8-1/4
1058 ft.

SHUCK S AUTOMOTIVE
25899 MISSION BLVD
HAYWARD, CA

EDR Historical Auto Stations **1009013708**
N/A

Site 2 of 2 in cluster H

Relative:
Higher

Actual:
77 ft.

EDR Historical Auto Stations:

Name:	SHUCK S AUTOMOTIVE
Year:	1970
Type:	AUTOMOBILE REPAIRING

I37
NNW
1/8-1/4
1119 ft.

PHIL-CO MOTORS
25030 MISSION BLVD
HAYWARD, CA 94544

HIST UST **U001597088**
N/A

Site 1 of 2 in cluster I

Relative:
Higher

Actual:
84 ft.

HIST UST:

Region:	STATE
Facility ID:	00000064954
Facility Type:	Other
Other Type:	R.V. LOT
Total Tanks:	0000
Contact Name:	PHILLIP HOLLOWELL
Telephone:	4155377758
Owner Name:	CAL TRANS
Owner Address:	#1 MKT. PLAZA
Owner City,St,Zip:	SAN FRANCISCO, CA 94120
Tank Num:	001
Container Num:	CLYDE 2
Year Installed:	Not reported
Tank Capacity:	00000000
Tank Used for:	PRODUCT
Type of Fuel:	REGULAR
Tank Construction:	Not reported
Leak Detection:	None

I38
NNW
1/8-1/4
1119 ft.

CALTRANS
25030 MISSION BLVD
HAYWARD, CA 94544

LUST **S101623690**
Cortese **N/A**
CA FID UST
SWEEPS UST

Site 2 of 2 in cluster I

Relative:
Higher

Actual:
84 ft.

LUST:

Region:	STATE
Case Type:	Other ground water affected
Cross Street:	Not reported
Enf Type:	F
Funding:	Not reported
How Discovered:	Tank Closure
How Stopped:	Not reported
Leak Cause:	Structure Failure
Leak Source:	Tank
Global Id:	T0600100241
Stop Date:	1986-01-16 00:00:00
Confirm Leak:	1986-01-16 00:00:00
Workplan:	Not reported

CALTRANS (Continued) **S101623690**

Prelim Assess: Not reported
Pollution Char: Not reported
Remed Plan: Not reported
Remed Action: Not reported
Monitoring: Not reported
Close Date: Not reported
Discover Date: 1986-01-16 00:00:00
Enforcement Dt: Not reported
Release Date: 1986-01-16 00:00:00
Review Date: 1990-07-17 00:00:00
Enter Date: 1986-01-16 00:00:00
MTBE Date: Not reported
GW Qualifier: Not reported
Soil Qualifier: Not reported
Max MTBE GW ppb: Not reported
Max MTBE Soil ppb: Not reported
County: 01
Org Name: Not reported
Reg Board: San Francisco Bay Region
Status: Leak being confirmed
Chemical: Gasoline
Contact Person: Not reported
Responsible Party: BLANK RP
RP Address: Not reported
Interim: No
Oversight Prgm: LUST
MTBE Class: *
MTBE Conc: 0
MTBE Fuel: 1
MTBE Tested: Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
Staff: Not reported
Staff Initials: DMG
Lead Agency: Local Agency
Local Agency: 01003
Hydr Basin #: UNNAMED BASIN
Beneficial: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: No
Local Case #: 01-0257
Case Number: 01-0257
Qty Leaked: Not reported
Abate Method: No Action Taken - no action has as yet been taken at the site
Operator: Not reported
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported
Summary: SPILL REPORT FORM ONLY, NEEDS MW'S

LUST:
Region: 2
Facility Status: Leak being confirmed
Facility Id: 01-0257
Case Number: 01-0257
How Discovered: Tank Closure

CALTRANS (Continued) **S101623690**

Leak Cause: Structure Failure
Leak Source: Tank
Date Leak Confirmed: 1/16/1986
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

Cortese:
Region: CORTESE
Facility Addr2: 25030 MISSION BLVD

CA FID UST:
Facility ID: 01000391
Regulated By: UTNKI
Regulated ID: 00064954
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 4155377758
Mail To: Not reported
Mailing Address: 25030 MISSION BLVD
Mailing Address 2: Not reported
Mailing City,St,Zip: HAYWARD 94544
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Inactive

SWEEPS UST:
Status: Not reported
Comp Number: 64954
Number: Not reported
Board Of Equalization: 44-000961
Ref Date: Not reported
Act Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: 01-003-064954-000001
Actv Date: Not reported
Capacity: 10
Tank Use: M.V. FUEL
Stg: PRODUCT
Content: LEADED
Number Of Tanks: 1

39
SSE
1/8-1/4
1125 ft.

JAVA AUTOMOTIVE
25899 DOLLAR ST
HAYWARD, CA

EDR Historical Auto Stations **1009015604**
N/A

Relative:
Higher

Actual:
71 ft.

EDR Historical Auto Stations:
Name: JAVA AUTOMOTIVE
Year: 1976
Type: AUTOMOBILE REPAIRING

J40
SSE
1/8-1/4
1234 ft.

HAYWARD MITSUBISHI
25900 MISSION BLVD
HAYWARD, CA 94541

RCRA-SQG **1004676616**
FINDS **CAR000087478**

Site 1 of 3 in cluster J

Relative:
Higher

Actual:
81 ft.

RCRA-SQG:
Date form received by agency: 11/30/2000
Facility name: HAYWARD MITSUBISHI
Facility address: 25900 MISSION BLVD
HAYWARD, CA 945412643
EPA ID: CAR000087478
Mailing address: 25715 MISSION BLVD
HAYWARD, CA 94544
Contact: MICHAEL MURPHY
Contact address: 25715 MISSION BLVD
HAYWARD, CA 94544
Contact country: US
Contact telephone: (510) 733-6800
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: A & M AUTOMOTIVE INVESTMENTS
Owner/operator address: 25715 MISSION BLVD
HAYWARD, CA 94544
Owner/operator country: Not reported
Owner/operator telephone: (510) 581-0400
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: Unknown
Mixed waste (haz. and radioactive): Unknown
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: Unknown
Furnace exemption: Unknown
Used oil fuel burner: No

HAYWARD MITSUBISHI (Continued) **1004676616**

Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Hazardous Waste Summary:
Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site

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K41 **NELSON T. LEWIS CONSTRUCTIO CO** **HIST UST** **U001597087**
NNW **25001O ONEIL AVE** **N/A**
1/8-1/4 **HAYWARD, CA 94544**
1263 ft.

Site 1 of 4 in cluster K

Relative: Higher

Actual: 82 ft.

HIST UST:
Region: STATE
Facility ID: 00000060523
Facility Type: Other
Other Type: CONTRACTOR
Total Tanks: 0001
Contact Name: Not reported
Telephone: 4155813362
Owner Name: NELSON T. LEWIS CONSTRUCTIO CO
Owner Address: 25001 O'NEIL AVENUE, P.O. BOX
Owner City,St,Zip: HAYWARD, CA 94544

Tank Num: 001
Container Num: 1
Year Installed: Not reported
Tank Capacity: 00000550
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: Not reported
Leak Detection: Stock Inventor

K42 **DAVE S AUTO BODY** **EDR Historical Auto Stations** **1009015585**
NNW **25021 O NEIL AVE** **N/A**
1/8-1/4 **HAYWARD, CA**
1304 ft.

Site 2 of 4 in cluster K

Relative:
Higher

EDR Historical Auto Stations:
Name: DAVE S AUTO BODY
Year: 1976
Type: AUTOMOBILE REPAIRING

Actual:
83 ft.

K43 **SNEED DANNY AUTO REPR** **EDR Historical Auto Stations** **1009015673**
NNW **25019 O NEIL AVE** **N/A**
1/8-1/4 **HAYWARD, CA**
1308 ft.

Site 3 of 4 in cluster K

Relative:
Higher

EDR Historical Auto Stations:
Name: SNEED DANNY AUTO REPR
Year: 1976
Type: AUTOMOBILE REPAIRING

Actual:
83 ft.

J44 **HAYWARD NISSAN** **RCRA-SQG** **1000905114**
SSE **25995 MISSION BL** **FINDS** **CA0000336065**
1/8-1/4 **HAYWARD, CA 94544** **HAZNET**
1309 ft. **LUST**

Site 2 of 3 in cluster J **Cortese**
CA FID UST
SWEEPS UST

Relative:
Higher

Actual:
83 ft.

RCRA-SQG:
Date form received by agency: 09/06/2005
Facility name: MISSION BLVD MTRS INC DBA HAYWARD NISSAN
Facility address: 25995 MISSION BLVD
HAYWARD, CA 94544
EPA ID: CA0000336065
Contact: TJ LOWE
Contact address: 25995 MISSION BLVD
HAYWARD, CA 94544
Contact country: US
Contact telephone: 510-537-7988
Contact email: LOWET@AUTONATION.COM
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: TJ LOWE
Owner/operator address: Not reported
Not reported
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator

HAYWARD NISSAN (Continued) **1000905114**

Owner/Op start date: 04/01/2003
Owner/Op end date: Not reported

Owner/operator name: AUTONATION
Owner/operator address: 1105 E 6TH ST 20TH FL
FT LAUDERDALE, FL 33301
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1998
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Commercial status unknown

Historical Generators:
Date form received by agency: 07/14/1994
Facility name: MISSION BLVD MTRS INC DBA HAYWARD NISSAN
Site name: HAYWARD NISSAN
Classification: Small Quantity Generator

Hazardous Waste Summary:
Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D002
Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

HAYWARD NISSAN (Continued) **1000905114**

Waste code: D008
Waste name: LEAD

Waste code: F001
Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLOROETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE, AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site

California - Hazardous Waste Tracking System - Datamart

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZNET:
Gepaid: CAL000011565
Contact: TORIAN HANK
Telephone: 0000000000
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 25995 MISSION BLVD
Mailing City,St,Zip: HAYWARD, CA 945442532
Gen County: 1
TSD EPA ID: CAD009452657
TSD County: San Mateo
Waste Category: Other organic solids
Disposal Method: Recycler
Tons: .0500
Facility County: 1

Gepaid: CAL000011565
Contact: TORIAN HANK
Telephone: 0000000000
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 25995 MISSION BLVD
Mailing City,St,Zip: HAYWARD, CA 945442532
Gen County: 1
TSD EPA ID: CAD009452657
TSD County: San Mateo
Waste Category: Unspecified organic liquid mixture
Disposal Method: Recycler
Tons: 3.1691

HAYWARD NISSAN (Continued) **1000905114**

Facility County: 1

Gepaid: CA0000336065
Contact: CHRIS ANDERSON, PARTS &SVC DIRECTOR
Telephone: 5105377988
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 25995 MISSION BLVD
Mailing City,St,Zip: HAYWARD, CA 945442532
Gen County: Alameda
TSD EPA ID: CA0000084517
TSD County: Sacramento
Waste Category: Aqueous solution with less than 10% total organic residues
Disposal Method: Transfer Station
Tons: 0.28
Facility County: Not reported

Gepaid: CAL000011565
Contact: TORIAN HANK
Telephone: 0000000000
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 25995 MISSION BLVD
Mailing City,St,Zip: HAYWARD, CA 945442532
Gen County: 1
TSD EPA ID: CAD980887418
TSD County: 1
Waste Category: Aqueous solution with less than 10% total organic residues
Disposal Method: Transfer Station
Tons: .8340
Facility County: 1

Gepaid: CA0000336065
Contact: HANK TORIAN
Telephone: 5102525050
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 25995 MISSION BLVD
Mailing City,St,Zip: HAYWARD, CA 945440000
Gen County: 1
TSD EPA ID: CAD093459485
TSD County: Fresno
Waste Category: Unspecified solvent mixture Waste
Disposal Method: Transfer Station
Tons: .0624
Facility County: 1

Click this hyperlink while viewing on your computer to access
28 additional CA_HAZNET: record(s) in the EDR Site Report.

LUST:
Region: STATE
Case Type: Other ground water affected
Cross Street: Harder Road
Enf Type: F
Funding: Not reported
How Discovered: Tank Closure

HAYWARD NISSAN (Continued) **1000905114**

How Stopped: Not reported
Leak Cause: Structure Failure
Leak Source: Tank
Global Id: T0600101460
Stop Date: 1987-08-07 00:00:00
Confirm Leak: 1990-03-14 00:00:00
Workplan: Not reported
Prelim Assess: 1986-11-30 00:00:00
Pollution Char: Not reported
Remed Plan: 1994-05-18 00:00:00
Remed Action: Not reported
Monitoring: 2007-02-19 00:00:00
Close Date: Not reported
Discover Date: 1987-08-07 00:00:00
Enforcement Dt: Not reported
Release Date: 1987-08-07 00:00:00
Review Date: 2000-06-06 00:00:00
Enter Date: 1990-03-14 00:00:00
MTBE Date: 1965-01-02 00:00:00
GW Qualifier: Not reported
Soil Qualifier: Not reported
Max MTBE GW ppb: 0
Max MTBE Soil ppb: Not reported
County: 01
Org Name: Not reported
Reg Board: San Francisco Bay Region
Status: Post remedial action monitoring
Chemical: Gasoline
Contact Person: Not reported
Responsible Party: TROY D. COX
RP Address: 38058 INEZ AVENUE
Interim: No
Oversight Prgm: LUST
MTBE Class: D
MTBE Conc: 1
MTBE Fuel: 1
MTBE Tested: MTBE Detected. Site tested for MTBE and MTBE detected
Staff: MYL
Staff Initials: DMG
Lead Agency: Local Agency
Local Agency: 01003
Hydr Basin #: Alameda East Bay (2-
Beneficial: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: No
Local Case #: 01-1585
Case Number: 01-1585
Qty Leaked: Not reported
Abate Method: No Action Taken - no action has as yet been taken at the site
Operator: Not reported
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported
Summary: NEED DGMW, MONITORING ONLY,2/21QR; REQ FOR CC PER GETTLER-RYAN 6/24/99.

HAYWARD NISSAN (Continued) **1000905114**

LUST:
Region: 2
Facility Status: Remediation Plan
Facility Id: 01-1585
Case Number: 01-1585
How Discovered: Tank Closure
Leak Cause: Structure Failure
Leak Source: Tank
Date Leak Confirmed: 3/14/1990
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 11/30/1986
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: 5/18/1994
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

Cortese:
Region: CORTESE
Facility Addr2: 25995 MISSION BLVD

CA FID UST:
Facility ID: 01001692
Regulated By: UTNKI
Regulated ID: 00010447
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 4155384433
Mail To: Not reported
Mailing Address: 2595 MISSION BLVD
Mailing Address 2: Not reported
Mailing City,St,Zip: HAYWARD 94544
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Inactive

SWEEPS UST:
Status: Not reported
Comp Number: 10447
Number: Not reported
Board Of Equalization: 44-000823
Ref Date: Not reported
Act Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: 01-003-010447-000001
Actv Date: Not reported
Capacity: 1000
Tank Use: M.V. FUEL
Stg: PRODUCT

HAYWARD NISSAN (Continued) **1000905114**

Content: REG UNLEADED
Number Of Tanks: 1

J45 **WATERS OLDSMOBILE** **EDR Historical Auto Stations** **1009013710**
SSE **25995 MISSION BLVD** **N/A**
1/8-1/4 **HAYWARD, CA**
1309 ft.

Site 3 of 3 in cluster J

Relative:
Higher

EDR Historical Auto Stations:
Name: WATERS OLDSMOBILE
Actual: Year: 1970
83 ft. Type: AUTOMOBILE REPAIRING

K46 **NELSON T. LEWIS CONSTRUCTIO CO** **CA FID UST** **S101623689**
NNW **25001 O'NEIL AVE** **SWEEPS UST** **N/A**
1/8-1/4 **HAYWARD, CA 94544**
1318 ft.

Site 4 of 4 in cluster K

Relative:
Higher

CA FID UST:
Facility ID: 01002917
Actual: Regulated By: UTNKA
83 ft. Regulated ID: 00060523
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 4155813362
Mail To: Not reported
Mailing Address: P O BOX
Mailing Address 2: Not reported
Mailing City,St,Zip: HAYWARD 94544
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

SWEEPS UST:
Status: A
Comp Number: 60523
Number: 1
Board Of Equalization: 44-000945
Ref Date: 07-08-93
Act Date: 03-24-94
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: 1
Swrcb Tank Id: 01-003-060523-000001
Actv Date: 10-29-92
Capacity: 550
Tank Use: M.V. FUEL
Stg: P
Content: REG UNLEADED
Number Of Tanks: 1

47
SSE
1/4-1/2
1418 ft.

PAHLMEYER PROPERTY
214 HARDER RD
HAYWARD, CA

Database(s): **Cortese**
EDR ID Number: **S101306506**
EPA ID Number: **N/A**

Relative:
Higher

Actual:
70 ft.

Cortese:
Region: CORTESE
Facility Addr2: 214 HARDER RD

48
NNW
1/4-1/2
1765 ft.

CHEVRON
24874 MISSION BLVD
HAYWARD, CA 94544

Database(s): **LUST, Cortese, CA FID UST, SWEEPS UST**
EDR ID Number: **S101580214**
EPA ID Number: **N/A**

Relative:
Higher

Actual:
98 ft.

LUST:

Region:	STATE
Case Type:	Other ground water affected
Cross Street:	Not reported
Enf Type:	F
Funding:	Not reported
How Discovered:	Tank Closure
How Stopped:	Not reported
Leak Cause:	Structure Failure
Leak Source:	Tank
Global Id:	T0600100320
Stop Date:	1991-01-03 00:00:00
Confirm Leak:	1991-04-26 00:00:00
Workplan:	1991-01-03 00:00:00
Prelim Assess:	1991-01-21 00:00:00
Pollution Char:	Not reported
Remed Plan:	Not reported
Remed Action:	Not reported
Monitoring:	Not reported
Close Date:	1993-03-30 00:00:00
Discover Date:	1991-01-03 00:00:00
Enforcement Dt:	Not reported
Release Date:	1991-01-03 00:00:00
Review Date:	1993-03-30 00:00:00
Enter Date:	1991-04-26 00:00:00
MTBE Date:	Not reported
GW Qualifier:	Not reported
Soil Qualifier:	Not reported
Max MTBE GW ppb:	Not reported
Max MTBE Soil ppb:	Not reported
County:	01
Org Name:	Not reported
Reg Board:	San Francisco Bay Region
Status:	Case Closed
Chemical:	Gasoline
Contact Person:	Not reported
Responsible Party:	BLANK RP
RP Address:	Not reported
Interim:	No
Oversight Prgm:	LUST
MTBE Class:	*
MTBE Conc:	0
MTBE Fuel:	1
MTBE Tested:	Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
Staff:	Not reported
Staff Initials:	DMG

CHEVRON (Continued) **S101580214**

Lead Agency: Local Agency
Local Agency: 01003
Hydr Basin #: UNNAMED BASIN
Beneficial: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: No
Local Case #: 01-0348
Case Number: 01-0348
Qty Leaked: Not reported
Abate Method: No Action Taken - no action has as yet been taken at the site
Operator: Not reported
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported
Summary: ARCHIVED 6/9/96 CONTROL NO 120-076 SRC 0904726

LUST:
Region: 2
Facility Status: Case Closed
Facility Id: 01-0348
Case Number: 01-0348
How Discovered: Tank Closure
Leak Cause: Structure Failure
Leak Source: Tank
Date Leak Confirmed: 4/26/1991
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: 1/3/1991
Preliminary Site Assesment Began: 1/21/1991
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

Cortese:
Region: CORTESE
Facility Addr2: 24874 MISSION BLVD

CA FID UST:
Facility ID: 01001996
Regulated By: UTNKI
Regulated ID: 00062550
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 4155818393
Mail To: Not reported
Mailing Address: P O BOX 5004
Mailing Address 2: Not reported
Mailing City,St,Zip: HAYWARD 94544
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported

CHEVRON (Continued) **S101580214**

Comments: Not reported
Status: Inactive

SWEEPS UST:
Status: Not reported
Comp Number: 62550
Number: Not reported
Board Of Equalization: 44-000951
Ref Date: Not reported
Act Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: 01-003-062550-000001
Actv Date: Not reported
Capacity: 10000
Tank Use: M.V. FUEL
Stg: PRODUCT
Content: REG UNLEADED
Number Of Tanks: 3

Status: Not reported
Comp Number: 62550
Number: Not reported
Board Of Equalization: 44-000951
Ref Date: Not reported
Act Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: 01-003-062550-000002
Actv Date: Not reported
Capacity: 10000
Tank Use: M.V. FUEL
Stg: PRODUCT
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 62550
Number: Not reported
Board Of Equalization: 44-000951
Ref Date: Not reported
Act Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: 01-003-062550-000003
Actv Date: Not reported
Capacity: 5000
Tank Use: M.V. FUEL
Stg: PRODUCT
Content: LEADED
Number Of Tanks: Not reported

L49
SSE
1/4-1/2
1937 ft.

Relative:
Higher

Actual:
89 ft.

OIL CHANGERS
26070 MISSION BLVD
HAYWARD, CA 94544

HAZNET **S100226532**
LUST **N/A**
Cortese

Site 1 of 2 in cluster L

HAZNET:

Gepaid:	CAL000005245
Contact:	OC III
Telephone:	0000000000
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	386 RAILROAD CT PO BOX 360810
Mailing City,St,Zip:	MILPITAS, CA 950350000
Gen County:	1
TSD EPA ID:	CAD059494310
TSD County:	Santa Clara
Waste Category:	Liquids with halogenated organic compounds > 1000 mg/l
Disposal Method:	Disposal, Other
Tons:	.2085
Facility County:	1

Gepaid:	CAL000005245
Contact:	RANDAL A SMITH-COMPLIANCE OFCR
Telephone:	9257345816
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	4511 WILLOW RD STE 1
Mailing City,St,Zip:	PLEASANTON, CA 945880000
Gen County:	Alameda
TSD EPA ID:	Not reported
TSD County:	San Mateo
Waste Category:	Unspecified organic liquid mixture
Disposal Method:	Recycler
Tons:	15.12
Facility County:	Not reported

Gepaid:	CAL000005245
Contact:	RANDAL A SMITH-COMPLIANCE OFCR
Telephone:	9257345816
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	4511 WILLOW RD STE 1
Mailing City,St,Zip:	PLEASANTON, CA 945880000
Gen County:	Alameda
TSD EPA ID:	Not reported
TSD County:	Los Angeles
Waste Category:	Unspecified oil-containing waste
Disposal Method:	Recycler
Tons:	0.22
Facility County:	Not reported

Gepaid:	CAL000005245
Contact:	OC III
Telephone:	0000000000
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	386 RAILROAD CT PO BOX 360810
Mailing City,St,Zip:	MILPITAS, CA 950350000

OIL CHANGERS (Continued) **S100226532**

Gen County:	1
TSD EPA ID:	CAD980887418
TSD County:	1
Waste Category:	Waste oil and mixed oil
Disposal Method:	Recycler
Tons:	4.9623
Facility County:	1
Gepaid:	CAL000005245
Contact:	RANDAL A SMITH-COMPLIANCE OFCR
Telephone:	9257345816
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	4511 WILLOW RD STE 1
Mailing City,St,Zip:	PLEASANTON, CA 945880000
Gen County:	Alameda
TSD EPA ID:	Not reported
TSD County:	San Mateo
Waste Category:	Unspecified organic liquid mixture
Disposal Method:	Recycler
Tons:	1.57
Facility County:	Not reported

Click this hyperlink while viewing on your computer to access
3 additional CA_HAZNET: record(s) in the EDR Site Report.

LUST:

Region:	STATE
Case Type:	O, S
Cross Street:	Not reported
Enf Type:	F
Funding:	Not reported
How Discovered:	Tank Closure
How Stopped:	Not reported
Leak Cause:	Structure Failure
Leak Source:	Tank
Global Id:	T0600101003
Stop Date:	1989-04-25 00:00:00
Confirm Leak:	1989-05-26 00:00:00
Workplan:	Not reported
Prelim Assess:	1989-07-24 00:00:00
Pollution Char:	Not reported
Remed Plan:	Not reported
Remed Action:	Not reported
Monitoring:	Not reported
Close Date:	Not reported
Discover Date:	1989-04-25 00:00:00
Enforcement Dt:	Not reported
Release Date:	1989-04-25 00:00:00
Review Date:	1989-06-06 00:00:00
Enter Date:	1989-05-26 00:00:00
MTBE Date:	Not reported
GW Qualifier:	Not reported
Soil Qualifier:	Not reported
Max MTBE GW ppb:	Not reported
Max MTBE Soil ppb:	Not reported
County:	01

OIL CHANGERS (Continued) **S100226532**

Org Name: Not reported
Reg Board: San Francisco Bay Region
Status: Preliminary site assessment underway
Chemical: Misc. Motor Vehicle Fuels
Contact Person: Not reported
Responsible Party: BLANK RP
RP Address: Not reported
Interim: No
Oversight Prgm: LUST
MTBE Class: *
MTBE Conc: 0
MTBE Fuel: 0
MTBE Tested: Not Required to be Tested.
Staff: Not reported
Staff Initials: DMG
Lead Agency: Local Agency
Local Agency: 01003
Hydr Basin #: Alameda East Bay (2-
Beneficial: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: No
Local Case #: 01-1087
Case Number: 01-1087
Qty Leaked: Not reported
Abate Method: No Action Taken - no action has as yet been taken at the site
Operator: Not reported
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported
Summary: 3.8 PPB CHLOROBENZ UNDER WO TANK(URF 8/89)

LUST:
Region: 2
Facility Status: Preliminary site assessment underway
Facility Id: 01-1087
Case Number: 01-1087
How Discovered: Tank Closure
Leak Cause: Structure Failure
Leak Source: Tank
Date Leak Confirmed: 5/26/1989
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 7/24/1989
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

Cortese:
Region: CORTESE
Facility Addr2: 26070 MISSION BLVD

L50
SSE
1/4-1/2
2016 ft.

Relative:
Higher

Actual:
89 ft.

UNOCAL
26091 MISSION BLVD
HAYWARD, CA 94544

Site 2 of 2 in cluster L

LUST **S102439786**
Cortese **N/A**

LUST:

Region:	STATE
Case Type:	Other ground water affected
Cross Street:	Not reported
Enf Type:	F
Funding:	Not reported
How Discovered:	Tank Closure
How Stopped:	Not reported
Leak Cause:	UNK
Leak Source:	UNK
Global Id:	T0600101799
Stop Date:	1994-08-11 00:00:00
Confirm Leak:	1994-08-11 00:00:00
Workplan:	1996-01-25 00:00:00
Prelim Assess:	Not reported
Pollution Char:	Not reported
Remed Plan:	Not reported
Remed Action:	Not reported
Monitoring:	Not reported
Close Date:	2000-02-18 00:00:00
Discover Date:	1994-08-11 00:00:00
Enforcement Dt:	Not reported
Release Date:	1994-08-11 00:00:00
Review Date:	2000-02-17 00:00:00
Enter Date:	1994-08-11 00:00:00
MTBE Date:	1999-07-08 00:00:00
GW Qualifier:	<
Soil Qualifier:	<
Max MTBE GW ppb:	5
Max MTBE Soil ppb:	1
County:	01
Org Name:	Not reported
Reg Board:	San Francisco Bay Region
Status:	Case Closed
Chemical:	Gasoline
Contact Person:	Not reported
Responsible Party:	BLANK RP
RP Address:	Not reported
Interim:	No
Oversight Prgm:	LUST
MTBE Class:	Not reported
MTBE Conc:	2
MTBE Fuel:	1
MTBE Tested:	MTBE Detected. Site tested for MTBE and MTBE detected
Staff:	Not reported
Staff Initials:	DMG
Lead Agency:	Local Agency
Local Agency:	01003
Hydr Basin #:	Alameda East Bay (2-
Beneficial:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	No

UNOCAL (Continued) **S102439786**

Local Case #: 01-1946
Case Number: 01-1946
Qty Leaked: Not reported
Abate Method: No Action Taken - no action has as yet been taken at the site
Operator: Not reported
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported
Summary: CITY LTR APROVE WRKPLN

LUST:
Region: 2
Facility Status: Case Closed
Facility Id: 01-1946
Case Number: 01-1946
How Discovered: Tank Closure
Leak Cause: UNK
Leak Source: UNK
Date Leak Confirmed: 8/11/1994
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: 1/25/1996
Preliminary Site Assesment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

Cortese:
Region: CORTESE
Facility Addr2: 26091 MISSION BLVD

---

51 **A & G RINO GAS** **LUST S105194663**
SW **25757 SOTO RD** **N/A**
1/4-1/2 **HAYWARD, CA 94544**
2041 ft.

Relative:
Lower

Actual:
53 ft.

LUST:
Region: STATE
Case Type: Undefined
Cross Street: Not reported
Enf Type: Not reported
Funding: Not reported
How Discovered: Tank Closure
How Stopped: Not reported
Leak Cause: UNK
Leak Source: UNK
Global Id: T0600191154
Stop Date: 1998-08-28 00:00:00
Confirm Leak: 1999-09-10 00:00:00
Workplan: Not reported
Prelim Assess: Not reported
Pollution Char: Not reported
Remed Plan: Not reported
Remed Action: 2006-08-09 00:00:00
Monitoring: 2001-03-02 00:00:00

A & G RINO GAS (Continued) **S105194663**

Close Date: Not reported
Discover Date: 1998-08-28 00:00:00
Enforcement Dt: Not reported
Release Date: 1999-09-10 00:00:00
Review Date: 2001-07-06 00:00:00
Enter Date: Not reported
MTBE Date: Not reported
GW Qualifier: Not reported
Soil Qualifier: Not reported
Max MTBE GW ppb: Not reported
Max MTBE Soil ppb: Not reported
County: 01
Org Name: Not reported
Reg Board: San Francisco Bay Region
Status: Remedial action (cleanup) Underway
Chemical: Gasoline
Contact Person: Not reported
Responsible Party: CARL SCHWAB
RP Address: P. O. BOX 768
Interim: Not reported
Oversight Prgm: LUST
MTBE Class: *
MTBE Conc: 0
MTBE Fuel: 1
MTBE Tested: MTBE Detected. Site tested for MTBE and MTBE detected
Staff: Not reported
Staff Initials: DMG
Lead Agency: Local Agency
Local Agency: 01003
Hydr Basin #: Alameda East Bay (2-
Beneficial: NO
Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: No
Local Case #: 01-2503
Case Number: 01-2503
Qty Leaked: Not reported
Abate Method: Not reported
Operator: Not reported
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported
Summary: Not reported

LUST:
Region: 2
Facility Status: Leak being confirmed
Facility Id: 01-2503
Case Number: 01-2503
How Discovered: Tank Closure
Leak Cause: UNK
Leak Source: UNK
Date Leak Confirmed: 9/10/1999
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported

A & G RINO GAS (Continued) **S105194663**

Preliminary Site Assesment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

M52 **HAYWARD TOYOTA** **RCRA-SQG 1000435180**
NNW **24773 MISSION BLVD** **FINDS CAD981640394**
1/4-1/2 **HAYWARD, CA 94544** **HAZNET**
2153 ft. **LUST**

Site 1 of 2 in cluster M

Relative: Higher

Actual: 106 ft.

RCRA-SQG:
Date form received by agency: 11/01/1991
Facility name: HAYWARD TOYOTA
Facility address: 24773 MISSION BLVD
HAYWARD, CA 94544
EPA ID: CAD981640394
Contact: ALAN KELLER
Contact address: 24773 MISSION BLVD
HAYWARD, CA 94544
Contact country: US
Contact telephone: (510) 889-8000
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: AUTO MISSION LTD
Owner/operator address: 24773 MISSION BLVD
HAYWARD, CA 94544
Owner/operator country: Not reported
Owner/operator telephone: (510) 899-8000
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: Unknown
Mixed waste (haz. and radioactive): Unknown
Recycler of hazardous waste: No

HAYWARD TOYOTA (Continued) **1000435180**

Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	Unknown
Furnace exemption:	Unknown
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No
Off-site waste receiver:	Commercial status unknown

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site

California - Hazardous Waste Tracking System - Datamart

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZNET:

Gepaid:	CAD981640394
Contact:	HAYWARD TOYOTA INC
Telephone:	0000000000
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	24773 MISSION BLVD
Mailing City,St,Zip:	HAYWARD, CA 945440000
Gen County:	1
TSD EPA ID:	CAD980887418
TSD County:	1
Waste Category:	Waste oil and mixed oil
Disposal Method:	Recycler
Tons:	.6255
Facility County:	1

Gepaid:	CAD981640394
Contact:	HAYWARD TOYOTA INC
Telephone:	0000000000
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	24773 MISSION BLVD
Mailing City,St,Zip:	HAYWARD, CA 945440000
Gen County:	1
TSD EPA ID:	CAD009452657
TSD County:	San Mateo
Waste Category:	Unspecified organic liquid mixture
Disposal Method:	Recycler

HAYWARD TOYOTA (Continued) **1000435180**

Tons: 10.1328
Facility County: 1

Gepaid: CAD981640394
Contact: HAYWARD TOYOTA INC
Telephone: 0000000000
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 24773 MISSION BLVD
Mailing City,St,Zip: HAYWARD, CA 945440000
Gen County: 1
TSD EPA ID: CAD009452657
TSD County: San Mateo
Waste Category: ***
Disposal Method: Not reported
Tons: .0000
Facility County: 1

Gepaid: CAD981640394
Contact: HAYWARD TOYOTA INC
Telephone: 0000000000
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 24773 MISSION BLVD
Mailing City,St,Zip: HAYWARD, CA 945440000
Gen County: 1
TSD EPA ID: CAD009452657
TSD County: San Mateo
Waste Category: Liquids with halogenated organic compounds > 1000 mg/l
Disposal Method: Disposal, Other
Tons: .1459
Facility County: 1

Gepaid: CAD981640394
Contact: HAYWARD TOYOTA INC
Telephone: 0000000000
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 24773 MISSION BLVD
Mailing City,St,Zip: HAYWARD, CA 945440000
Gen County: 1
TSD EPA ID: CAD053044053
TSD County: 1
Waste Category: Liquids with halogenated organic compounds > 1000 mg/l
Disposal Method: Transfer Station
Tons: .4211
Facility County: 1

Click this hyperlink while viewing on your computer to access
39 additional CA_HAZNET: record(s) in the EDR Site Report.

LUST:
Region: STATE
Case Type: Other ground water affected
Cross Street: Not reported
Enf Type: F
Funding: Not reported

HAYWARD TOYOTA (Continued) **1000435180**

How Discovered:	Tank Closure
How Stopped:	Not reported
Leak Cause:	Structure Failure
Leak Source:	Tank
Global Id:	T0600100685
Stop Date:	1985-08-15 00:00:00
Confirm Leak:	1985-10-24 00:00:00
Workplan:	Not reported
Prelim Assess:	1990-04-25 00:00:00
Pollution Char:	Not reported
Remed Plan:	Not reported
Remed Action:	Not reported
Monitoring:	Not reported
Close Date:	Not reported
Discover Date:	1985-08-15 00:00:00
Enforcement Dt:	Not reported
Release Date:	1985-08-15 00:00:00
Review Date:	2000-05-08 00:00:00
Enter Date:	1990-04-25 00:00:00
MTBE Date:	1999-02-23 00:00:00
GW Qualifier:	<
Soil Qualifier:	<
Max MTBE GW ppb:	1400
Max MTBE Soil ppb:	1
County:	01
Org Name:	Not reported
Reg Board:	San Francisco Bay Region
Status:	Preliminary site assessment underway
Chemical:	Gasoline
Contact Person:	Not reported
Responsible Party:	BLANK RP
RP Address:	Not reported
Interim:	Yes
Oversight Prgm:	LUST
MTBE Class:	C
MTBE Conc:	2
MTBE Fuel:	1
MTBE Tested:	MTBE Detected. Site tested for MTBE and MTBE detected
Staff:	Not reported
Staff Initials:	DMG
Lead Agency:	Local Agency
Local Agency:	01003
Hydr Basin #:	UNNAMED BASIN
Beneficial:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	No
Local Case #:	01-0743
Case Number:	01-0743
Qty Leaked:	Not reported
Abate Method:	Excavate and Dispose - remove contaminated soil and dispose in approved site
Operator:	Not reported
Water System Name:	Not reported
Well Name:	Not reported
Distance To Lust:	0
Waste Discharge Global ID:	Not reported

HAYWARD TOYOTA (Continued) **1000435180**

Waste Disch Assigned Name: Not reported
Summary: NEXT PHASE OF WORK NOT YET PROPOSED, CANNOT ISSUE LOC - 7/17/98. MAXSOIL=TPH.

LUST:
Region: 2
Facility Status: Preliminary site assessment underway
Facility Id: 01-0743
Case Number: 01-0743
How Discovered: Tank Closure
Leak Cause: Structure Failure
Leak Source: Tank
Date Leak Confirmed: 10/24/1985
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 4/25/1990
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

M53 **LEW DOTY CADILLAC** **HAZNET S101623686**
NNW **24773 MISSION BLVD** **Cortese N/A**
1/4-1/2 **HAYWARD, CA 94544** **CA FID UST**
2153 ft. **SWEEPS UST**

Site 2 of 2 in cluster M

Relative: Higher

Actual: 106 ft.

HAZNET:
Gepaid: CAC000091349
Contact: GENE FRANK
Telephone: 4157910890
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 24773 MISSION BLVD
Mailing City,St,Zip: HAYWARD, CA 945440000
Gen County: Alameda
TSD EPA ID: CAT080033681
TSD County: Alameda
Waste Category: Unspecified organic liquid mixture
Disposal Method: Recycler
Tons: 0.68
Facility County: 1

Cortese:
Region: CORTESE
Facility Addr2: Not reported

CA FID UST:
Facility ID: 01000869
Regulated By: UTNKA
Regulated ID: 00018267
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 4155812932
Mail To: Not reported
Mailing Address: 24773 MISSION BLVD
Mailing Address 2: Not reported

LEW DOTY CADILLAC (Continued) **S101623686**

Mailing City,St,Zip:	HAYWARD 94544
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

SWEEPS UST:

Status:	Not reported
Comp Number:	18267
Number:	Not reported
Board Of Equalization:	44-000848
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	01-003-018267-000001
Actv Date:	Not reported
Capacity:	1000
Tank Use:	M.V. FUEL
Stg:	PRODUCT
Content:	DIESEL
Number Of Tanks:	3

Status:	Not reported
Comp Number:	18267
Number:	Not reported
Board Of Equalization:	44-000848
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	01-003-018267-000002
Actv Date:	Not reported
Capacity:	5000
Tank Use:	M.V. FUEL
Stg:	PRODUCT
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	18267
Number:	Not reported
Board Of Equalization:	44-000848
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	01-003-018267-000003
Actv Date:	Not reported
Capacity:	550
Tank Use:	OIL

LEW DOTY CADILLAC (Continued) **S101623686**

Stg: WASTE
Content: WASTE OIL
Number Of Tanks: Not reported

54
West
1/4-1/2
2527 ft.

Relative:
Higher

Actual:
71 ft.

FUJIIS PLANT OUTLET
24949 SOTO RD
HAYWARD, CA 94544

LUST **S101623678**
Cortese **N/A**
CA FID UST
SWEEPS UST

LUST:

Region:	STATE
Case Type:	Soil only
Cross Street:	Not reported
Enf Type:	F
Funding:	Not reported
How Discovered:	Tank Closure
How Stopped:	Not reported
Leak Cause:	Structure Failure
Leak Source:	Tank
Global Id:	T0600100619
Stop Date:	1985-09-11 00:00:00
Confirm Leak:	1985-09-11 00:00:00
Workplan:	Not reported
Prelim Assess:	Not reported
Pollution Char:	Not reported
Remed Plan:	Not reported
Remed Action:	Not reported
Monitoring:	Not reported
Close Date:	1995-07-06 00:00:00
Discover Date:	1985-09-11 00:00:00
Enforcement Dt:	Not reported
Release Date:	1985-09-11 00:00:00
Review Date:	1993-03-01 00:00:00
Enter Date:	1985-09-11 00:00:00
MTBE Date:	Not reported
GW Qualifier:	Not reported
Soil Qualifier:	Not reported
Max MTBE GW ppb:	Not reported
Max MTBE Soil ppb:	Not reported
County:	01
Org Name:	Not reported
Reg Board:	San Francisco Bay Region
Status:	Case Closed
Chemical:	Gasoline
Contact Person:	Not reported
Responsible Party:	BLANK RP
RP Address:	Not reported
Interim:	Yes
Oversight Prgm:	LUST
MTBE Class:	*
MTBE Conc:	0
MTBE Fuel:	1
MTBE Tested:	Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
Staff:	Not reported
Staff Initials:	DMG
Lead Agency:	Local Agency
Local Agency:	01003
Hydr Basin #:	Alameda East Bay (2-

FUJIIS PLANT OUTLET (Continued) **S101623678**

Beneficial: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: No
Local Case #: 01-0673
Case Number: 01-0673
Qty Leaked: Not reported
Abate Method: Excavate and Dispose - remove contaminated soil and dispose in approved site
Operator: Not reported
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported
Summary: ARCHIVED 6/6/96 CONTROL NO 120-079 SRC 0904729

LUST:
Region: 2
Facility Status: Case Closed
Facility Id: 01-0673
Case Number: 01-0673
How Discovered: Tank Closure
Leak Cause: Structure Failure
Leak Source: Tank
Date Leak Confirmed: 9/11/1985
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

Cortese:
Region: CORTESE
Facility Addr2: 24949 SOTO RD

CA FID UST:
Facility ID: 01000794
Regulated By: UTNKI
Regulated ID: 00027870
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 4158865855
Mail To: Not reported
Mailing Address: 24949 SOTO RD
Mailing Address 2: Not reported
Mailing City,St,Zip: HAYWARD 94544
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Inactive

FUJIIS PLANT OUTLET (Continued) **S101623678**

SWEEPS UST:

Status:	Not reported
Comp Number:	27870
Number:	Not reported
Board Of Equalization:	Not reported
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	01-003-027870-000001
Actv Date:	Not reported
Capacity:	455
Tank Use:	M.V. FUEL
Stg:	PRODUCT
Content:	LEADED
Number Of Tanks:	1

N55 **MISSION BLVD LINCOLN MERCURY INC** **RCRA-SQG** **1000382476**
NNW **24644 MISSION BLVD** **FINDS** **CAD981442528**
1/4-1/2 **HAYWARD, CA 94544** **HAZNET**
2593 ft. **Cortese**
Site 1 of 2 in cluster N **CA FID UST**
Relative: **HIST UST**
Higher **SWEEPS UST**

Actual: **111 ft.**

RCRA-SQG:

Date form received by agency:	09/01/1996
Facility name:	MISSION BLVD LINCOLN MERCURY INC
Facility address:	24644 MISSION BLVD HAYWARD, CA 94544
EPA ID:	CAD981442528
Contact:	Not reported
Contact address:	Not reported Not reported
Contact country:	Not reported
Contact telephone:	Not reported
Contact email:	Not reported
EPA Region:	09
Land type:	Facility is not located on Indian land. Additional information is not known.
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	MISSION BLVD LINCOLN MERC INC
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

MISSION BLVD LINCOLN MERCURY INC (Continued) **1000382476**

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED
	NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	Unknown
Mixed waste (haz. and radioactive):	Unknown
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	Unknown
Furnace exemption:	Unknown
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No
Off-site waste receiver:	Commercial status unknown

Historical Generators:

Date form received by agency:	09/10/1986
Facility name:	MISSION BLVD LINCOLN MERCURY INC
Classification:	Large Quantity Generator
Violation Status:	No violations found

Evaluation Action Summary:

Evaluation date:	11/18/1993
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	Not reported
Date achieved compliance:	Not reported
Evaluation lead agency:	State Contractor/Grantee

FINDS:

Other Pertinent Environmental Activity Identified at Site

California - Hazardous Waste Tracking System - Datamart

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

MISSION BLVD LINCOLN MERCURY INC (Continued) **1000382476**

HAZNET:

Gepaid:	CAD981442528
Contact:	Not reported
Telephone:	0000000000
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	24644 MISSION BLVD
Mailing City,St,Zip:	HAYWARD, CA 945441636
Gen County:	1
TSD EPA ID:	CAD009452657
TSD County:	San Mateo
Waste Category:	Unspecified organic liquid mixture
Disposal Method:	Recycler
Tons:	3.1274
Facility County:	1

Gepaid:	CAD981442528
Contact:	Not reported
Telephone:	0000000000
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	24644 MISSION BLVD
Mailing City,St,Zip:	HAYWARD, CA 945441636
Gen County:	1
TSD EPA ID:	CAD093459485
TSD County:	Fresno
Waste Category:	Unspecified solvent mixture Waste
Disposal Method:	Transfer Station
Tons:	.0624
Facility County:	1

Gepaid:	CAD981442528
Contact:	Not reported
Telephone:	0000000000
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	24644 MISSION BLVD
Mailing City,St,Zip:	HAYWARD, CA 945441636
Gen County:	1
TSD EPA ID:	CAD009452657
TSD County:	San Mateo
Waste Category:	Unspecified organic liquid mixture
Disposal Method:	Recycler
Tons:	3.8988
Facility County:	1

Gepaid:	CAD981442528
Contact:	Not reported
Telephone:	0000000000
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	24644 MISSION BLVD
Mailing City,St,Zip:	HAYWARD, CA 945441636
Gen County:	1
TSD EPA ID:	CAD009452657
TSD County:	San Mateo
Waste Category:	Unspecified organic liquid mixture

MISSION BLVD LINCOLN MERCURY INC (Continued) **1000382476**

Disposal Method: Recycler
Tons: 2.9815
Facility County: 1

Gepaid: CAD981442528
Contact: Not reported
Telephone: 0000000000
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 24644 MISSION BLVD
Mailing City,St,Zip: HAYWARD, CA 945441636
Gen County: 1
TSD EPA ID: CAL000161743
TSD County: Santa Clara
Waste Category: Aqueous solution with less than 10% total organic residues
Disposal Method: Transfer Station
Tons: 1.0008
Facility County: 1

Click this hyperlink while viewing on your computer to access
23 additional CA_HAZNET: record(s) in the EDR Site Report.

Cortese:
Region: CORTESE
Facility Addr2: Not reported

CA FID UST:
Facility ID: 01002321
Regulated By: UTNKI
Regulated ID: 00019830
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 4158865052
Mail To: Not reported
Mailing Address: 24644 MISSION BLVD
Mailing Address 2: Not reported
Mailing City,St,Zip: HAYWARD 94544
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Inactive

HIST UST:
Region: STATE
Facility ID: 00000019830
Facility Type: Other
Other Type: AUTO DEALER
Total Tanks: 0003
Contact Name: JOE CRAM
Telephone: 4158865052
Owner Name: FORD LEASING DEVELOPMENT COMPA
Owner Address: 300 RENAISSANCE CENTER
Owner City,St,Zip: DETROIT, MI 48243

MISSION BLVD LINCOLN MERCURY INC (Continued) **1000382476**

Tank Num: 001
Container Num: 3
Year Installed: Not reported
Tank Capacity: 00000000
Tank Used for: WASTE
Type of Fuel: WASTE OIL
Tank Construction: Not reported
Leak Detection: None

Tank Num: 002
Container Num: 2
Year Installed: Not reported
Tank Capacity: 00000000
Tank Used for: WASTE
Type of Fuel: WASTE OIL
Tank Construction: Not reported
Leak Detection: None

Tank Num: 003
Container Num: 1
Year Installed: Not reported
Tank Capacity: 00001000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: Not reported
Leak Detection: None

SWEEPS UST:
Status: Not reported
Comp Number: 19830
Number: Not reported
Board Of Equalization: 44-000854
Ref Date: Not reported
Act Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: 01-003-019830-000001
Actv Date: Not reported
Capacity: 550
Tank Use: OIL
Stg: WASTE
Content: WASTE OIL
Number Of Tanks: 3

Status: Not reported
Comp Number: 19830
Number: Not reported
Board Of Equalization: 44-000854
Ref Date: Not reported
Act Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: 01-003-019830-000002
Actv Date: Not reported
Capacity: 550

MISSION BLVD LINCOLN MERCURY INC (Continued) **1000382476**

Tank Use:	OIL
Stg:	WASTE
Content:	WASTE OIL
Number Of Tanks:	Not reported
Status:	Not reported
Comp Number:	19830
Number:	Not reported
Board Of Equalization:	44-000854
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	01-003-019830-000003
Actv Date:	Not reported
Capacity:	1000
Tank Use:	M.V. FUEL
Stg:	PRODUCT
Content:	REG UNLEADED
Number Of Tanks:	Not reported

N56
NNW
1/4-1/2
2593 ft.

MISSION LINCOLN MERCURY INC **LUST S104162101**
24644 MISSION BLVD **N/A**
HAYWARD, CA 94544

Site 2 of 2 in cluster N

Relative:
Higher

Actual:
111 ft.

LUST:

Region:	STATE
Case Type:	Soil only
Cross Street:	Not reported
Enf Type:	F
Funding:	Not reported
How Discovered:	Tank Closure
How Stopped:	Not reported
Leak Cause:	UNK
Leak Source:	UNK
Global Id:	T0600101718
Stop Date:	1993-12-13 00:00:00
Confirm Leak:	1993-12-13 00:00:00
Workplan:	1994-01-10 00:00:00
Prelim Assess:	Not reported
Pollution Char:	Not reported
Remed Plan:	Not reported
Remed Action:	Not reported
Monitoring:	Not reported
Close Date:	1996-06-10 00:00:00
Discover Date:	1993-12-13 00:00:00
Enforcement Dt:	Not reported
Release Date:	1993-12-13 00:00:00
Review Date:	1994-01-10 00:00:00
Enter Date:	1994-02-22 00:00:00
MTBE Date:	Not reported
GW Qualifier:	Not reported
Soil Qualifier:	Not reported
Max MTBE GW ppb:	Not reported
Max MTBE Soil ppb:	Not reported

MISSION LINCOLN MERCURY INC (Continued) **S104162101**

County: 01
Org Name: Not reported
Reg Board: San Francisco Bay Region
Status: Case Closed
Chemical: Gasoline
Contact Person: Not reported
Responsible Party: BLANK RP
RP Address: Not reported
Interim: Yes
Oversight Prgm: LUST
MTBE Class: *
MTBE Conc: 0
MTBE Fuel: 1
MTBE Tested: Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
Staff: Not reported
Staff Initials: DMG
Lead Agency: Local Agency
Local Agency: 01003
Hydr Basin #: UNNAMED BASIN
Beneficial: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: No
Local Case #: 01-1852
Case Number: 01-1852
Qty Leaked: Not reported
Abate Method: Excavate and Dispose - remove contaminated soil and dispose in approved site
Operator: Not reported
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported
Summary: ARCHIVED 11/1/96 CONTROL NO 120-107 SRC 0904757

LUST:
Region: 2
Facility Status: Case Closed
Facility Id: 01-1852
Case Number: 01-1852
How Discovered: Tank Closure
Leak Cause: UNK
Leak Source: UNK
Date Leak Confirmed: 12/13/1993
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: 1/10/1994
Preliminary Site Assesment Began: Not reported
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

57
SSE
1/2-1
3694 ft.

KARDA AUTO CLINIC — Notify 65 — S100179583
26699 MISSION BOULEVARD — N/A
HAYWARD, CA 92508

Relative:
Higher

Actual:
89 ft.

Notify 65:

Date Reported:	Not reported
Staff Initials:	Not reported
Board File Number:	Not reported
Facility Type:	Not reported
Discharge Date:	Not reported
Incident Description:	92508

58
West
1/2-1
4441 ft.

JACKSON STREET LUMBER COMPANY — ENVIROSTOR — S102008154
73 WEST JACKSON STREET — N/A
HAYWARD, CA 94544

Relative:
Higher

Actual:
67 ft.

ENVIROSTOR:

Site Type:	Evaluation
Site Type Detailed:	Evaluation
Acres:	6.5
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	DENISE TSUJI
Supervisor:	Denise Tsuji
Division Branch:	North Coast
Facility ID:	01240033
Site Code:	Not reported
Assembly:	18
Senate:	10
Special Program:	Not reported
Status:	No Further Action
Status Date:	1994-06-27 00:00:00
Restricted Use:	NO
Funding:	Not reported
Latitude:	37.6541666666667
Longitude:	-122.088611111111
Alias Name:	01240033 JACKSON STREET LUMBER COMPANY CAD028287068 443-0050-012-00
Alias Type:	Envirostor ID Number EPA Identification Number APN Alternate Name
APN:	443-0050-012-00
APN Description:	Not reported
Comments:	Completed Site Screening.Site screening attributed contamination to an isolated incident and recommended NFA.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Screening
Completed Date:	2002-04-22 00:00:00
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Screening
Completed Date:	1993-03-05 00:00:00
Confirmed:	NONE SPECIFIED

JACKSON STREET LUMBER COMPANY (Continued) **S102008154**

Confirmed Description:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Media Affected:	NMA
Media Affected Desc:	Not reported
Management Required:	NONE SPECIFIED
Management Required Desc:	Not reported
Potential:	NONE SPECIFIED,31000
Potenital Description:	Not reported
Potenital Description:	No Contaminants found
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported
PastUse:	NONE

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
HAYWARD	S106922918	AT & T WALPERT RIDGE (CAL202)	HWY 580 TO FAIRVIEW	94544	SWEEPS UST
HAYWARD	S106895112	BURBANK E.S./HAYWARD JOINT USE PARK	SOUTHEAST CORNER BURBANK/C STREET	94541	SCH, ENVIROSTOR
HAYWARD	S106924571	CITY OF HAYWARD	FIRE STATION NO. 2 360 W HARDER RD	94544	SWEEPS UST
HAYWARD	S106924572	CITY OF HAYWARD	FIRE STATION NO. 5 28595 HAYWARD BLVD	94542	SWEEPS UST
HAYWARD	94397545	HAYWARD LANE	HAYWARD LANE		ERNS
HAYWARD	93319087	HAYWARD (UNKNOWN EXACT LOCATION)	HAYWARD (UNKNOWN EXACT LOCATION)		ERNS
HAYWARD	S105093352	HAYWARD CITY TOW & REPAIR	1593 W INDUSTRIAL PRKWY UNIT 5	94544	HAZNET
HAYWARD	S108203800	COUNTY OF HAYWARD - PUBLIC WORKS	LAT 37.618610 LONG 122.058978	94544	HAZNET
HAYWARD	8713547	NR:CORSAIR ST/HAYWARD CA	NR:CORSAIR ST/HAYWARD CA		ERNS
HAYWARD	S108222101	TASHA AUTOMOTIVE GROUP DBA HAYWARD TOYOT	24915 O'NEIL ST	94544	HAZNET
HAYWARD	S107147145	HAYWARD TOYOTA	24915 O'NEIL ST	94544	HAZNET
HAYWARD	1009605011	HAYWARD REBOND PLANT	30955 SAN ANTON		FINDS
HAYWARD	94400581	SOUTHERN PACIFIC HAYWARD LINE, COAST SUBDIVISION, ROSEVILLE	SOUTHERN PACIFIC HAYWARD LINE, COAST SUBDIVISION, ROSEVILLE		ERNS
HAYWARD	S106234887	AMERICAN STORES - HAYWARD	A ST B ST MISSION BLVD		SLIC
HAYWARD	S104572617	NORTH HAYWARD CORP CENTER ASSOC	209 6TH ST - 209 8TH ST-CABOT ST		HAZNET
HAYWARD	1003879369	WIEGMAN FARMS	3177 WEIGMAN RD	94544	CERC-NFRAP
HAYWARD	S108246102	UNION PACIFIC RR HAYWARD SIDING	0 WESTERN ST / SUNSET	94544	SLIC
HAYWARD	S106784872	UNION PACIFIC RR HAYWARD SIDING	0 WESTERN ST / SUNSET BLVD	94544	CS

Phase I Environmental Site Assessment
671 Berry Avenue
Hayward, California

ERAS

Environmental, Inc.

1533 B Street

Hayward, CA 94541

Phone (510) 247-9885 Facsimile: (510) 886-5399 info@eras.biz

PHASE I ENVIRONMENTAL SITE ASSESSMENT
671 Berry Avenue
Hayward, California
ERAS Project Number 12062

Mr. Charles Pifer
335 Alta Vista Way
Laguna Beach, California 92651

Prepared by:

ERAS Environmental, Inc.
April 13, 2012

ERAS

Environmental, Inc.

1533 B Street

Hayward, CA 94541

(510) 247-9885 Facsimile: (510) 886-5399

info@eras.biz

April 13, 2012

Mr. Charles Pifer
335 Alta Vista Way
Laguna Beach, California 92651

Re: **PHASE I ENVIRONMENTAL SITE ASSESSMENT**
671 Berry Avenue, Hayward, California
ERAS Project Number 12062

Dear Mr. Pifer:

ERAS Environmental (ERAS) is pleased to provide you with the attached Phase I Environmental Site Assessment (ESA) for the above referenced Property. The assessment included a visual reconnaissance of the Property, a review of environmental databases and agency records for nearby sites, a review of historical maps and aerial photographs, a review of historical directories, and a review of available files regarding the Property with the Hayward Building and Fire Departments and Alameda County Department of Environmental Health. Conclusions and recommendations presented in our report were based upon the completion of these activities.

If you have any questions regarding the information in this report, please don't hesitate to call us. It has been a pleasure working with you on this project.

Sincerely,
ERAS Environmental, Inc.

Registered Environmental Assessor II
DAVID SIEGEL
REA II - 20200
Expires 1-30-12
STATE OF CALIFORNIA

Andrew Savage
Project Geologist

David Siegel, R.E.A. II 20200
Senior Program Manager

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1.0 INTRODUCTION

1.1 Purpose and Scope

This Phase I Environmental Site Assessment (ESA) was performed to identify, to the extent feasible, recognized environmental conditions in connection with the subject site (cited hereinafter as the "Property").

We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in §312.10 of this part.

We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312. This protocol utilized for this assessment is in general accordance with the requirements of ASTM Standard E 1527-05. The current ASTM standard meets the purpose and scope of the Environmental Protection Agency All Appropriate Inquiry (AAI).

The environmental professional's resumes and certifications are included in **Appendix A**.

The assessment included four main components: Records Review, Historical Use Information Review, Visual Reconnaissance of the Property and Interviews, and Report Preparation. The purpose of the records review is to obtain and review records that will help identify recognized environmental conditions in connection with the Property. The objective of the visual reconnaissance is to obtain information indicating the likelihood of identifying recognized environmental conditions in connection with the Property. The objective of the interviews is to obtain additional information indicating recognized environmental conditions in connection with the Property. The report includes documentation to support the analysis, opinions and conclusions as presented.

1.2 Authorization

Authorization to perform this assessment was provided by Mr. Charles Pifer on March 29, 2012 in response to ERAS proposal dated the same day.

1.3 Limitations and Exceptions

ERAS has performed the services for this project in accordance with our proposal, and in accordance with current standards of the American Society for Testing and Materials (ASTM) for Phase I Environmental Site Assessments (ASTM standard E1527-05). No guarantees are either expressed or implied.

The investigation was limited to a search for *recognized environmental conditions*. The term *recognized environmental condition* means the presence or likely presence of any hazardous substances or petroleum products on the Property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the Property or into the ground, groundwater, or surface water of the Property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include de minimis conditions that generally do

not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

There is no investigation, which is thorough enough to preclude the presence of hazardous materials, which presently, or in the future, may be considered hazardous at the Property. Because regulatory evaluation criteria are constantly changing, concentrations of constituents presently considered low may, in the future, fall under more stringent regulatory standards that require remediation.

The visual reconnaissance was limited to observation of surface conditions at the Property. *Reasonably ascertainable* information was obtained. This information is publicly available and obtainable from its source within reasonable time and cost constraints, and is reasonably reviewable. This approach reflects current ASTM standards unless the information obtained as part of this work suggests the need for further investigation. No warranty or guarantee of Property conditions is intended.

The investigation addressed recognized environmental conditions at the Property. However, certain conditions, such as those listed below, may not be revealed:

1) naturally occurring toxic materials in the subsurface soils, rocks, water or toxicity of on site-flora;

2) toxicity of substances common in current habitable environments, such as stored household products, building materials, and consumables;

3) biological pathogens;

4) contaminant plumes below sampled or observed surface levels, originating from a remote source;

5) constituents or constituent concentrations that do not violate present regulatory standards, but may violate future standards;

6) unknown impact to the Property, such as "midnight" dumping and/or accidental spillage which may occur following the visual reconnaissance of the Property by ERAS.

Opinions and judgments expressed herein, which are based upon our understanding and interpretation of current regulatory standards, should not be construed as legal opinions.

2.0 PROPERTY DESCRIPTION

2.1 Location and Jurisdiction

The subject property (hereinafter the "Property") is located at 671 Berry Avenue on the southeast side of Berry Avenue in the southern portion of the City of Hayward. Alameda County lists the Property with a parcel number of 444-60-4. The 1 Mile Radius Map included as a site location map in **Appendix B** shows the location of the Property. Current photographs showing important details of the Property are included in **Appendix C**.

2.2 Property Description

An ERAS representative visited the Property on April 11, 2012. The Property consisted of a roughly rectangular parcel which was approximately 1 acre was in area and was occupied by a residential house and out buildings at the time of the site visit.

To the northeast were residential houses at 685-697 Berry Avenue along with residential apartments. To the southeast was a vacant parcel formerly occupied by Hayward Ford at 25501 Mission Boulevard and to the southwest was Glen Berry Apartments at 626 Berry Avenue. To the northwest was Berry Avenue and across the street were residential houses at 656-676 Berry Avenue.

The Property contained a residential house, and asphalt paved driveway, three out buildings one of which had fire damage, and vacant weed covered yard area. Trash and debris was observed through out the weed covered yard area behind the house.

The interior of the house was finished with carpet, ceramic tile, and vinyl sheet floors, sheetrock, and wood slat walls, sheetrock and wood slat ceilings. The interior contained bedrooms, bathrooms, a kitchen, and storage closets. A crawl space was located under the house.

A domestic water well was observed on the southeastern side of the house at the entrance to one of the out buildings. No leaks or spills were observed in the vicinity. The well appeared to be hooked up and potentially in use. No well details could be determined at the time of the site visit. A small turbine pump was attached to the top of the well head preventing access to the well without causing damage.

Hazardous materials observed on the Property consisted of approximately 20 pints and 12 quarts of oil spray for insects, and 5 to 10 gallons of common household cleaners. No leaks or spills were observed in the vicinity of these materials.

Septic systems, drywells, monitoring wells or evidence of subsurface investigations was not observed on the Property by ERAS. No evidence of above ground storage tanks (AST) or underground storage tanks (UST) were observed on the Property by ERAS. No evidence of leakage, spillage or dumping of regulated material was observed on the Property by ERAS.

Photographs illustrating important features of the Property is included in **Appendix C**. Observations made by ERAS at the time of the site visit are shown on the site reconnaissance checklist in **Appendix E**.

2.3 Property Use

The Property was developed with the current building in the mid 1940's on previously vacant land and has been used for a residential site since.

2.4 Suspect ACM/PCBs/Lead Paint/Lead in Drinking Water

Asbestos

Based on the age of the buildings (mid 1940's, see **Historical Use Information**), it is possible that there are quantities of asbestos containing materials (ACM) present. it is possible that there are quantities of asbestos containing materials (ACM) present. Suspect materials could include sheetrock surfacing, acoustic ceiling tiles and vinyl flooring and mastics. Roofing materials could also contain asbestos. All suspect materials were observed to be in good condition with the exception of a ceiling in the public entrance area where water damage appears to have occurred.

ACM may become a hazard if the materials are disturbed during demolition, renovation or remodeling activities. All materials suspected to contain asbestos should be sampled and analyzed prior to activities that could damage them.

PCBs

There no indication that PCB containing equipment had been used on the Property.

Lead Paint

Based upon the construction dates of the building, it is possible that surfaces of the building contain lead-based paint. Painted surfaces were noted to be in generally good condition at the time of the site visit. No areas of peeling or flaking paint were noted.

Lead in Drinking Water

A survey of the building for lead in drinking water was not requested in the Scope of Work for this assessment. Testing for lead in drinking water inside commercial buildings in not usually recommended unless the planned uses are for specific sensitive uses such as hospitals, residential, elderly care facilities or children's day care centers. Since ERAS understands this building is to be used for other commercial purposes, this sampling is not recommended.

2.5 Physical Setting

The site is located in the western part of Alameda County, approximately 3 miles east of the San Francisco Bay, and lies within the Coast Ranges California Geomorphic province. The ground surface elevation at the Property is approximately 60 feet above Mean Sea Level (MSL) according to the 1993 United States Geological Survey (USGS) Hayward Quadrangle Topographic Map. Surface topography in the immediate vicinity of the Property is relatively level, with a gentle, south southwest downward slope.

2.6 Geologic and Soil Conditions

The sediments in the vicinity of the Property are fine-grained alluvial sediments that represent distal deposits of alluvial fans that were deposited by rivers draining upland surfaces to the west and east of the Property. These sediments were deposited in a low energy environment on the margins of San Francisco Bay. At shallow depths beneath these sediments are a series of Recent-

age (<10,000 years) blue clay layers that become increasingly thicker toward San Francisco Bay (Helley, et al, 1974). These clay layers are known as the Bay Mud and were deposited in San Francisco Bay during higher stands of sea level. In the vicinity of the Property it is likely that several hundred feet of these sediments overlie several thick gravel beds alternating with thick fine grained units that are known to be present in the general vicinity. Beneath these sediments are sandstones and serpentine of the Jurassic-aged Franciscan Formation.

2.7 Groundwater Conditions

The Property is located in an area known as the Bay Plain, which is a subarea of the Santa Clara Valley Groundwater Basin (Department of Water Resources, 1967). The Bay Plain is characterized by thin interbeds of sand, silt and clay deposited in flat lying marshland and shallow low energy alluvial channels. Groundwater in this area generally occurs at shallow depths in thin discontinuous fine sand beds within deposits of mostly silt and clay. The regional groundwater flow generally follows the topography, moving from areas of higher elevation to areas of lower elevation.

Groundwater flow direction and depth has not been determined at the Property. However, based on the regional topography, the groundwater flow direction in the vicinity of the Property is expected to be southwest. Groundwater monitoring conducted at 25501 Mission Boulevard indicated that the regional groundwater flow direction in the vicinity of the Property was to the southwest and groundwater was encountered at a depth of approximately 23 feet bellow ground surface (bgs). (AET, 2008)

3.0 REGULATORY AGENCY RECORDS REVIEW

3.1 Standard Federal and State Environmental Record Sources

Groundwater flow direction and depth has not been determined at the Property. However, based on the regional topography, the groundwater flow direction in the vicinity of the Property is expected to be southwest. Groundwater monitoring conducted at 25501 Mission Boulevard confirmed that the regional groundwater flow direction in the vicinity of the Property was to the southwest and groundwater was encountered at a depth of approximately 23 feet bellow ground surface (bgs). (AET, 2008)

.

Only the sites that are directly up-gradient or in close proximity (adjacent) are usually considered to pose a threat to subsurface environmental conditions under the Property. The potential impact of off-site contaminants to the Property are based on the type of chemical released, the severity of the release, status of remediation or cleanup, and nature of the groundwater in the area of impact and area of the Property.

Sites where groundwater is known to be impacted are listed on a variety of Federal and State databases and are the cases most likely to affect other nearby parcels. These databases include the National Priority List (NPL), Superfund (CERCLIS) and State-Sites lists. Sites that have caused groundwater contamination from fuel (petroleum) leaks and solvent leaks are reported on the Leaking Underground Storage Tank List (LUST).

Fuel hydrocarbons generally do not migrate as readily as other chemicals such as certain solvents; consequently, reported fuel leak sites at distances greater than ½ mile from the Property are not considered imminent threats and are not plotted on database maps. Leaks from underground storage tank sites are the most common source of local contamination. Leaks of this type generally do not extend down-gradient more than approximately 500 feet (approximately 1/10 mile) except under unusual conditions. All toxic sites within a 1 mile radius are plotted and reviewed to determine potential threats to the Property.

Databases searched for specified radii around the Property also include listed facilities that treat, store, transfer or dispose of hazardous waste (RCRATSD), large (RCRA-GEN) generators of hazardous waste, reported spills of hazardous materials (ERNS, State Spills) sites containing registered underground storage tanks (REG UST).

Information from standard Federal and State environmental databases was provided to ERAS by Environmental FirstSearch Technology Corporation (FSTC)) of California. Data from governmental agency lists are updated and integrated into one database, which is updated as these data are released. This integrated database also contains postal service data in order to enhance matching of street addresses. Records from one government source are compared to records from another to clarify any address ambiguities. The demographic and geographic information available provides assistance in identifying and managing risk. The accuracy of the geo-coded locations is +/- 300 feet.

Maps in the FSTC report show the locations of all sites identified relative to the location of the Property. The Property is indicated as TP (Target Property) on the database. The database is

included as **Appendix D**.

Federal

List Type	Approximate Search Distance in Miles
NPL	1.0
CERCLIS	0.5
NFRAP	0.5
RCRA COR	1.0
RCRA TSD	0.5
RCRA GEN	0.25
RCRA NLR	0.12
ERNS	0.12

State

List Type	Approximate Search Distance in Miles
State Sites	1.0
Spills-1990	0.12
SWL	0.5
Leaking UST	0.5
REG UST/AST	0.25
PERMITS	0.25
Other	0.25
HW Manifest	0.12

3.2 Findings From Database Review

The Property was not listed on any of the databases searched. An adjacent site at 25501 Mission Boulevard was identified on the RCRA Generator, UST, and LUST databases. A nearby up-gradient site at 25225 Mission Boulevard was identified on the UST, LUST, and HW Manifest databases. These sites are further discussed in **Section 3.3**.

A summary of the findings from the FSTC environmental database search is provided on the following pages. The summary is presented in the order of the database listing on **Page #1** of the FSTC report.

The locations of the other identified sites, relative to the Property, are shown on the **1 Mile Radius, .5 Mile Radius and .25 Mile Radius** maps in the FSTC Report in **Appendix D**.

Federal Lists

Federal NPL The National Priorities (Superfund) List is the federal EPA database of uncontrolled or abandoned hazardous waste sites identified, or proposed, for priority remedial actions under the Superfund Program.

No NPL or proposed NPL sites were identified within 1 mile of the Property.

CERCLIS Listing

The EPA maintains a database of potentially hazardous waste sites that have been reported to the US EPA by states, municipalities, private companies and private persons. CERCLIS contains sites, which are either proposed, or on the NPL list and sites which are in the screening and assessment phase for possible inclusion on the NPL.

One CERCLIS site was identified within ½ mile of the Property. The identified site, Alameda County Mercury Mystery at 25514 Del Mar Avenue, was located almost ¼ of a mile to the northeast of the Property in a cross-gradient direction. Based on the distance and direction this site is not considered likely to pose a threat to the subsurface environmental conditions beneath the Property.

NFRAP Listing

This list is a compilation of sites, which the EPA has investigated or is currently investigating for a release or threatened release of hazardous substances. Sites in the NFRAP database may be locations where, following initial investigations, contamination was removed or determined to be not serious enough to require Superfund consideration.

No NFRAP sites were identified within ½ mile of the Property.

RCRA COR ACT Listing

The EPA maintains this database of sites that have been subject to a Corrective Action order under the Resource Conservation and Recovery Act (RCRA).

No RCRA COR ACT sites were identified within 1 mile of the Property.

RCRA TSD Facilities Listing

The federal RCRA Program identifies and tracks hazardous waste from the point of generation to the point of disposal. The RCRA TSD database is a compilation of reporting facilities that transport, treat, store and dispose of hazardous waste.

No RCRA TSD sites were identified within 1 mile of the Property.

RCRA Generators Listing

The EPA's Resource Conservation and Recovery Act (RCRA) Program identifies and tracks hazardous waste from the point of generation to the point of disposal. The RCRA Generators database is a compilation by the EPA of reporting facilities that generate hazardous waste. The database is separated into large generators (RCRIS-LG) and small generators (RCRIS-SG).

Eight RCRA GEN generator sites were identified on this list within a ¼ mile radius of the Property. The nearest identified site, Hayward Ford at 25501, was located adjacent to the Property and is further discussed in **Section 3.3**.

None of the other identified sites were located in close proximity and in a direction up-gradient from the Property. None of the other identified sites are considered likely to pose a threat to subsurface environmental conditions beneath the Property.

RCRA NLR listing
The EPA's Resource Conservation and Recovery Act (RCRA) Program identifies and tracks hazardous waste from the point of generation to the point of disposal. The RCRA Generators includes NLR (No Longer Listed) sites, which generate less than 100Kg of hazardous waste per month and do not meet other RCRA requirements.

No RCRA NLR generator sites were identified on this list within a 1/8 mile radius of the Property.

Emergency Response Notification System (ERNS)
The Emergency Response Notification System (ERNS) is a national database used to collect information on reported releases of oil or hazardous substances.

No ERNS spills listings were identified within 1/8 mile of the Property.

State/Tribal Lists
State Sites, California CERCLIS-Equivalent SCL Listing
The California Environmental Protection Agency, Department of Toxic Substances Control (CalEPA DTSC), maintains an inventory of facilities that are subject to investigations concerning likely or threatened releases of hazardous substances. Sites that were formerly listed in Abandoned Sites Project Information System (ASPIS), and Bond Expenditure Plan (BEP) Cal-Sites and CORTESE sites are now included in the **State Sites** database report. Approximately 1% of these sites are known to be significantly contaminated at the current time. Remedial cleanup work has been completed at the majority of these sites, which are identified as requiring no further action. Currently, only about 300 of these cases are identified as active hazardous substance release sites.

One State site was identified within 1 mile of the Property. The identified site, Jackson Street Lumber Company at 73 West Jackson Street, was located almost 1 mile to the southwest of the Property in a down-gradient direction. Based on the distance and location this site is not considered likely to pose a threat to the subsurface environmental conditions beneath the Property.

State Spills-1990, California Hazardous Materials Incident Report System
The California Office of Emergency Services listing contains information on reported hazardous materials incidents (accidental releases or spills).

No State Spills-1990 sites were identified within 1/8 mile of the Property.

State/Tribal SWL, Solid Waste Information System and Waste Management Unit Database
The Integrated Waste Management Board and the State Water Resource Control Board maintain databases of active, closed and inactive landfills, waste management information, SWAT Program information, Chapter 15 Information, TPCA and RCRA Program information.

No SWL sites were identified within ½ mile of the Property.

State/Tribal Leaking LUST Listing
The California EPA and Regional Water Quality Control Board (RWQCB) generate and maintain lists of reported leaking underground storage tank (LUST) sites. Fuel leak sites rarely affect an area more than 1/8 mile from its source except under unusual conditions. Most contamination from these sites is confined to areas within 500-700 feet of the leak source.

Fifteen (15) LUST sites were identified within ½ mile of the Property. An adjacent site at 25501 Mission Boulevard was identified along with a nearby up-gradient site at 25225 Mission Boulevard. These sites are further discussed in **Section 3.3**

None of the other identified sites were located in close proximity and in a direction up-gradient from the Property. None of the other identified sites are considered likely to pose a threat to subsurface environmental conditions beneath the Property.

State/Tribal UST/AST, Regulated Underground Storage Tank and Above Ground Storage Tanks
The State Water Resource Control Board maintains a list of active UST/AST Facilities.

Eight UST/AST sites were listed on this database within ¼ mile of the Property. An adjacent site at 25501 Mission Boulevard was identified along with a nearby up-gradient site at 25225 Mission Boulevard. These sites are further discussed in **Section 3.3**

None of the other identified sites were located in close proximity and in a direction up-gradient from the Property. None of the other identified sites are considered likely to pose a threat to subsurface environmental conditions beneath the Property.

Permits, City or County permits database maintained for hazardous materials storage, usage and disposal permits within their jurisdiction.

No Permits sites were listed in this database within ¼ mile of the Property.

Other, database of sites not falling into other categories in this database.

Two Other site was listed in this database within ¼ mile of the Property. Neither of the identified sites were located in a close proximity and in an up-gradient direction. Based on the distance and location neither of the identified sites are considered threats to the subsurface environmental conditions beneath the Property.

HW Manifest, Database of all shipments of hazardous waste within, into or from California. The data includes date of shipment, transporter and TSD info, and material shipped and quantity. This data is appended to the details of existing generator records.

Three HW Manifest site was listed in this database within 1/4 mile of the Property. The nearest identified site, BP West Coast Products at 25225 Mission Boulevard, was located approximately 450

feet to the northeast in an up-gradient direction. This site was also listed as a UST and a LUST site. Based on the distance, location, and site status the available regulatory files for this site were reviewed and are further discussed in **Section 3.3**.

None of the other identified sites were located in close proximity and in a direction up-gradient from the Property. None of the other identified sites are considered likely to pose a threat to subsurface environmental conditions beneath the Property.

3.3 Off-site Sources and Agency File Reviews

An adjacent site at 25501 Mission Boulevard was identified on the RCRA Generator, UST, and LUST databases. A nearby up-gradient site at 25225 Mission Boulevard was identified on the UST, LUST, and HW Manifest databases. Based on their listings and location the available records for these sites were reviewed at the Hayward Fire Department on April 3, 2012. No records for these sites were found at the Alameda County Environmental Health Department.

25501 Mission Boulevard

The file for this site contained Hayward Fire inspection records dating back to 1985 and environmental investigations dating back to 1986. The most recent document in the file was correspondence from the Hayward Fire Department indicating that their environmental cleanup and investigation was not in compliance since they had not collected samples since 2008. This letter is included in **Appendix F**.

The report for the sampling dated in 2008 indicated that two fuel USTs which included a 2,000 gallon diesel UST and a 2,000 gallon gasoline UST were removed in 1986 and a hydraulic lift was removed in 1990. Contamination was encountered and three groundwater monitoring wells were installed. The most recent samples were collected in 2008.

The groundwater flow direction was indicated to be to the southwest placing the Property cross-gradient of this site. The location of the former USTs were approximately 400 feet northeast of the Property and the location of the lift was more than 200 feet from the Property. The detected contamination was limited to the immediate area around the former USTs and extended slightly southwest cross-gradient of the Property. Portions of this report are included in **Appendix F**.

Based on the groundwater flow direction, location of the contamination, and maps showing the extent of the contamination this site is not considered likely to pose a threat to the subsurface environmental conditions beneath the Property.

25225 Mission Boulevard

The file for this site contained Hayward Fire inspection records dating back to 1986 and environmental investigations dating back to 1987. A case closure letter was found in the file along with a closure summary report and these are included in **Appendix G**.

According to the closure summary soil and groundwater samples were collected at the site in 1986 and hydrocarbon contamination was discovered which resulted from the use of the site as a gas station. Environmental sampling was conducted numerous times between 1986 and 2001. In 1986 a waste oil tank was removed from the site and in 1998 three fuel USTs were removed from the site.

By 2001 contaminant concentrations were at or bellow laboratory detection limits with the exception of methyl tert butyl ether (MTBE) which was still detected in one monitoring well at 7.4 parts per billion (ppb). The site was granted case closure in October of 2001 based on the low to non detectable concentrations of contaminants at the site.

The inspection records reviewed did not indicate any threats to the subsurface environmental conditions beneath the Property since the previous case closure.

This site was located approximately 450 feet from the Property. Based on the distance and site status this site is not considered likely to pose a threat to the subsurface environmental conditions beneath the Property.

4.0 HISTORICAL USE INFORMATION

Available historical data were researched to obtain information regarding the past uses of the Property and adjacent sites, especially as the information may pertain to environmental conditions or concerns.

4.1 Historical Map and Photograph Review

The United States Geological Survey Hayward, California 7.5 Minute Series Topographic Map, 1980 shows the Property elevation at approximately 60 feet with a local topographic slope down to the southwest.

Historical USGS Topographic Maps

The United States Geological Survey Hayward, California, 15 Minute Series Topographic Maps dated 1899, 1915, 1941, 1942, and 1946, and Hayward 7.5 Minute Series Topographic maps dated 1947, 1950, 1959, 1968, 1973, and 1980 were reviewed at http://sunsite.berkeley.edu/histopo/.

The Property was indicated to be vacant between 1899 and 1915 then occupied by a residential home between 1941 and 1950. Between 1959 and 1980 the Property was shown to be part of urban development with no individual building detail shown.

Historical Aerial Photographs

ERAS reviewed historical aerial photographs, which included the Property available on line at http://www.historicaerials.com/. Photographs dated in 1946, 1949, 1958, 1966, 1968, 1980, 1987, 1988, 1993, 2000, 2002, and 2005 were reviewed. The Property was indicated to be occupied by a residential house on all photographs reviewed.

Historical City Directories

ERAS reviewed historical Polk and Haines City Directories, which included the Property available at the City of Hayward Public Library. Directories dated in 1940, 1946, 1951, 1955, 1959, 1964, 1967, 1971, 1976, 1981, 1984, 1990, 1995-96, 2000-01, 2005, and 2009 were reviewed. There was no listing for the Property between 1940 and 1955. Between 1959 and 2009 the Property was indicated to have been occupied by a residence.

4.2 Interview

ERAS reviewed an interview form completed by Robert A Johnson, a representative of the bank which foreclosed on the Property. Mr. Johnson indicated that the bank foreclosed on the Property in January of 2012. Mr. Johnson stated he has no pertinent knowledge of the Property.

Mr. Johnson's responses were compiled on ERAS Environmental Questionnaire along with observations made by ERAS at the time of the site visit. The Environmental Questionnaire is included as **Appendix E**.

4.3 Building, Fire, and Health Department File Review

City of Hayward Building Department

ERAS reviewed the available records for the Property at the City of Hayward Building Department on April 3, 2012. Records were available dated in 1962 and 1993. The Property was indicated to be owned by Mr. and Ms. Leal.

Hayward Fire Department

No records were found at the Hayward Fire Department regarding the Property.

Alameda County Environmental Health Department

No records were found at the Alameda County Environmental Health Department regarding the Property.

4.4 Synopsis of Previous Environmental Investigations

No indications of previous environmental investigations were found in the files reviewed.

4.5 Environmental Liens

No environmental liens were found during the research conducted for this assessment.

5.0 RECONNAISSANCE

Photographs were taken during the reconnaissance to document the features observed and any environmental conditions of concern. Photographs are included in **Appendix C**.

5.1 Visual Reconnaissance of the Property

ERAS conducted a visual reconnaissance of the Property on April 11, 2012 to identify potential indications of environmental concern.

Drums, Containers, and Storage Tanks

The on-site reconnaissance addressed containers, drums, above ground storage tanks, and other storage units containing materials, which may pose an environmental threat at the Property. Containers of hazardous materials observed on the Property consisted of approximately 20 pints and 12 quarts of oil spray for insects, and 5 to 10 gallons of common household cleaners. No leaks or spills were observed in the vicinity of these materials.

Evidence of Waste Disposal

The on-site reconnaissance addressed dumps, pits, ponds, landfills, borrow pits and lagoons, which may have been used for disposal purposes at the Property. No such items were observed on the Property. Trash debris was however noted in the weed covered yard area behind the residential house.

Surface Fill

The on-site reconnaissance did not reveal any evidence of surface fill.

Surface Staining and Stressed Vegetation

No stressed vegetation or evidence of chemical spillage was observed on the Property during the on-site reconnaissance.

Transformers

There was no indication that PCB containing equipment was used on the Property.

Air Stacks, Vents, and Odors

The on-site reconnaissance addressed air stacks, vents, and strong, pungent or noxious odors at the Property. No such items were noted on the Property.

Evidence of Underground or Aboveground Storage Tanks

No evidence of USTs or ASTs were observed.

Conduits to Groundwater

A domestic water well was observed on the southeastern side of the house at the entrance to one of the out buildings. No leaks or spills were observed in the vicinity.

Evidence of Improper Waste Discharge

Pipes and/or vents, indicating improper discharge of wastes, were not found on the Property.

On-Site Environmental Management Practices

The on-site reconnaissance addressed the following environmental management practices.

Solid Waste
Trash cans were observed on the Property for the purpose of disposal of solid waste.

Hazardous Materials and Waste
Hazardous materials observed on the Property consisted of approximately 20 pints and 12 quarts of oil spray for insects, and 5 to 10 gallons of common household cleaners. No leaks or spills were observed in the vicinity of these materials.

Treatment Facilities
No such items were noted.

Application of Pesticides, Herbicides or Fertilizers
No evidence of the application of pesticides, herbicides, or fertilizers was indicated during the on-site reconnaissance.

General Environmental Practices
No indications of adverse environmental practices were observed on the Property during the on-site reconnaissance.

5.2 Adjacent and Nearby Site Uses
The following observations were made of parcels adjacent to the Property:

Northeast Residential homes at 685-697 Berry Avenue

Southeast Vacant former Hayward Ford at 25501 Mission Boulevard

Southwest Residential apartments at 626 Berry Avenue

Northwest Berry Avenue and residential homes at 656-676 Berry Avenue

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

ERAS has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-05 for the Property. The current ASTM standard meets the purpose and scope of the Environmental Protection Agency All Appropriate Inquiry (AAI).Any exceptions to, or deletions from this Practice are described in the report.

We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in §312.10 of this part. We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Data failure occurred for the time period between 1899 to 1915 and 1915 to 1940. During this time periods the Property appeared to be vacant and undeveloped. Based on the consistent use of the Property, the lack of specific historical detail is not considered likely to negatively affect the conclusions of this assessment.

Site Visit

An ERAS representative visited the Property on April 11, 2012. The Property consisted of a roughly rectangular parcel which was approximately 1 acre in area and was occupied by a residential house and out buildings at the time of the site visit.

The Property contained a residential house, and asphalt paved driveway, three out buildings one of which had fire damage, and vacant weed covered yard area. Trash and debris was observed through out the weed covered yard area behind the house. The interior contained bedrooms, bathrooms, a kitchen, and storage closets. A crawl space was located under the house.

A domestic water well was observed on the southeastern side of the house at the entrance to one of the out buildings. No leaks or spills were observed in the vicinity. The well appeared to be connected up and potentially in use. No well details could be determined at the time of the site visit. A small turbine pump was attached to the top of the well head preventing access to the well without causing damage.

Hazardous materials observed on the Property consisted of approximately 20 pints and 12 quarts of oil spray for insects, and 5 to 10 gallons of common household cleaners. No leaks or spills were observed in the vicinity of these materials.

Septic systems, drywells, monitoring wells or evidence of subsurface investigations was not observed on the Property by ERAS. No evidence of above ground storage tanks (AST) or underground storage tanks (UST) were observed on the Property by ERAS. No evidence of leakage, spillage or dumping of regulated material was observed on the Property by ERAS.

Based on the age of the buildings it is possible there are quantities of asbestos containing materials and there is the possibility that there is lead based paint on surfaces. All building materials were observed to be in ok condition. With regard to mold, none was observed in the buildings.

Historical Summary

The Property was developed with the current building in the mid 1940's on previously vacant land and has been used as a residential house since.

Database Review / Property Environmental Investigations

The Property was not identified on any of the databases searched. An adjacent site at 25501 Mission Boulevard was identified on the RCRA Generator, UST, and LUST databases. A nearby up-gradient site at 25225 Mission Boulevard was identified on the UST, LUST, and HW Manifest databases. Based on their listings and location the available records for these sites were reviewed at the Hayward Fire Department on April 3, 2012.

Based on the groundwater flow direction, location of the contamination, and maps showing the extent of the contamination these sites are not considered likely to pose a threat to the subsurface environmental conditions beneath the Property.

None of the remaining sites identified on the environmental databases are located in close proximity and in an up-gradient direction. None of the identified sites are considered likely to pose a risk to subsurface environmental conditions beneath the Property.

A search for environmental liens for the Property did not identify any liens.

6.2 Recommendations

No evidence was discovered during this assessment to indicate that activities currently or historically conducted on or near the Property have contributed contamination to soil or groundwater beneath the Property.

With regard to asbestos and lead paint, areas containing suspect materials should be maintained in good condition and any damage promptly repaired. Samples of the suspect materials should be collected and analyzed prior to activities that could damage them such as renovation, remodeling or demolition. If these activities occur, materials containing asbestos and lead paint to be disturbed should be removed by qualified abatement contractors. Based on the findings of the survey, materials left in place should be properly managed through preparation and use of an operations and maintenance plan.

A domestic groundwater well was observed on the Property. If this well is not going to be retained for future use this well should be properly abandoned to minimize the risk of contamination to groundwater. The well appeared to be hooked up and potentially in use. No well details could be determined at the time of the site visit. A small turbine pump was attached to the top of the well head preventing access to the well without causing damage.

Based on all the information obtained during this assessment, it is not considered likely that activities conducted on or near the Property have caused impact to subsurface environmental conditions under the Property, therefore, ERAS recommends no further investigation or other activities pertaining to subsurface environmental conditions at the Property located at 671 Berry Avenue, in Hayward, California.

7.0 REFERENCES AND APPENDICES

Maps, Aerial Photographs, and Other Geographic References

The United States Geological Survey Hayward, California, 15 Minute Series Topographic Maps dated 1899, 1915, 1941, 1942, and 1946, and Hayward 7.5 Minute Series Topographic maps dated 1947, 1950, 1959, 1968, 1973, and 1980 were reviewed at http://sunsite.berkeley.edu/histopo/.

Aerial Photographs: available for review online at http://www.historicaerials.com/ dated 1946, 1949, 1958, 1966, 1968, 1980, 1987, 1988, 1993, 2000, 2002, and 2005.

Historical City Directories reviewed at Hayward Public Library dated in 1940, 1946, 1951, 1955, 1959, 1964, 1967, 1971, 1976, 1981, 1984, 1990, 1995-96, 2000-01, 2005, and 2009.

Published References

Applied Environmental Technologies Inc. (AET), Groundwater Monitoring and Sampling (Second Quarter 2008) Hayward Ford, 25501 Mission Boulevard, Hayward, California, November 24, 2008.

California Department of Water Resources, Evaluation of Ground Water Resources South Bay, Appendix A: Geology, Bulletin 118-1, August 1967.

California Regional Water Quality Control Board, Closure Letter for Arco/Thrifty Oil Company Station #055 at 25225 Mission Boulevard, Hayward, CA, October 22, 2001.

California Regional Water Quality Control Board, Water Quality Control Plan, San Francisco Bay Basin Region (2), January 1986.

Environmental FirstSearch Report, 671 Berry Avenue, Hayward, CA Job Number 12062, dated March 30, 2012.

Goldman, Harold B., Geology of San Francisco Bay prepared for San Francisco Bay Conservation and Development Commission, February 1967.

Hayward Fire Department, Request to Complete Cleanup and Investigation of LUST Site Contamination Case # RB 01-1130-Former Hayward Ford at 25501 Mission Boulevard, Hayward, California, March 28, 2012.

Hayward Fire Department, Case Closure Request for RB File No. 01-1477, the Contamination Site Case of Thrifty Oil Company Station #055 at 25225 Mission Boulevard, Hayward, CA, October 15, 2001.

Helley, E.J., La Joie, K.R., Spangle, W.E., and Blair, M.L., Flatland Deposits of the San Francisco Bay Region, California - their geology and engineering properties and their importance to comprehensive planning, U.S. Geological Survey Professional Paper 943, 1974.

Records Review, Interviews and Agency Contacts

City of Hayward Building and Fire Department file review, April 3, 2012.

Interview with Robert A Johnson, April 2, 2012.

APPENDIX A

ENVIRONMENTAL PROFESSIONALS RESUME AND CERTIFICATION

David Siegel

David Siegel is president of ERAS Environmental, Inc., an environmental consulting company formed in October 1998. Prior to that, Mr. Siegel was operator of Siegel Environmental Consulting Services, formed in February 1994, a full service environmental consulting company providing due diligence services, geological and hydrogeological research, Phase 2 field services such as groundwater well installation and sampling, waste disposal, project management and remediation planning and permitting. Before involvement with operations management of these environmental consulting firms, Mr. Siegel was a Project Hydrogeologist, Project Geologist, and Staff Geologist with three San Francisco Bay Area environmental consulting companies. Mr. Siegel holds a masters degree in geology from California State University in Hayward and has been licensed as a California Registered Environmental Assessor (REA) since 1990, an Class II REA since 2001 and as a California Certified Asbestos Consultant since 1995.

QUALIFICATIONS

Experience in hazardous materials consulting including due diligence projects, soil and groundwater investigations and remediation, and asbestos surveying since 1987. Strong organizational background in project management including budget development and management and client contact and service. Strong technical background in groundwater well design and installation, soil and groundwater chemical data evaluation and hydrogeological assessment. Inspection experience of hundreds of commercial sites including retail, office, industrial, and residential. Since 1998 experience providing management, business development, technical oversight and client and regulatory contact for self-owned and operated environmental consulting companies.

WORK HISTORY

1994-Present: ***President of ERAS Environmental, Inc. and Principal of Siegel Environmental***
Management and completion of due diligence projects for a wide variety of commercial properties throughout California. Management and completion of Phase 2 soil and groundwater and asbestos sampling projects at former and operating gasoline stations and industrial facilities. Responsible for project initiation, planning, report preparation and technical oversight. Responsible for business development, client contact and local and state regulatory agency compliance for ongoing investigation, cost recovery and case closures.

1987-1994: ***Project Hydrogeologist (McCulley, Frick & Gilman, San Francisco; 1992-1994), Project Manager (Converse Environmental, San Francisco; 1989-1992), Project Manager (Exceltech, Inc., Fremont; 1987-1989)***
Management and completion of environmental and geotechnical investigations involving soil and groundwater contamination. Responsible for project planning, budgeting and operation, professional staff supervision and report completion. Interface with engineers for site remediation planning.

EDUCATION AND LICENCES

- 1995 - Present California Certified Asbestos Inspector
- 1992 Lead Based Paint Building Inspector Certification
- 1990 - Present California Registered Environmental Assessor Class II
- 1990 Groundwater Modeling for Remedial Actions
- 1988 M.S. Geological Sciences, California State University, Hayward

State of California
California Environmental Protection Agency
Office of Environmental Health Hazard Assessment

David Siegel

has fulfilled the requirements for registration as a
Registered Environmental Assessor II (REA II)

Date Registered: November 14, 2001

Registration Number: REA II - 20200

Joan E. Denton, Ph.D.
Director
Office of Environmental Health Hazard Assessment

APPENDIX B

LOCATION and SITE MAPS

Environmental FirstSearch

1 Mile Radius

ASTM Map: NPL, RCRACOR, STATE Sites

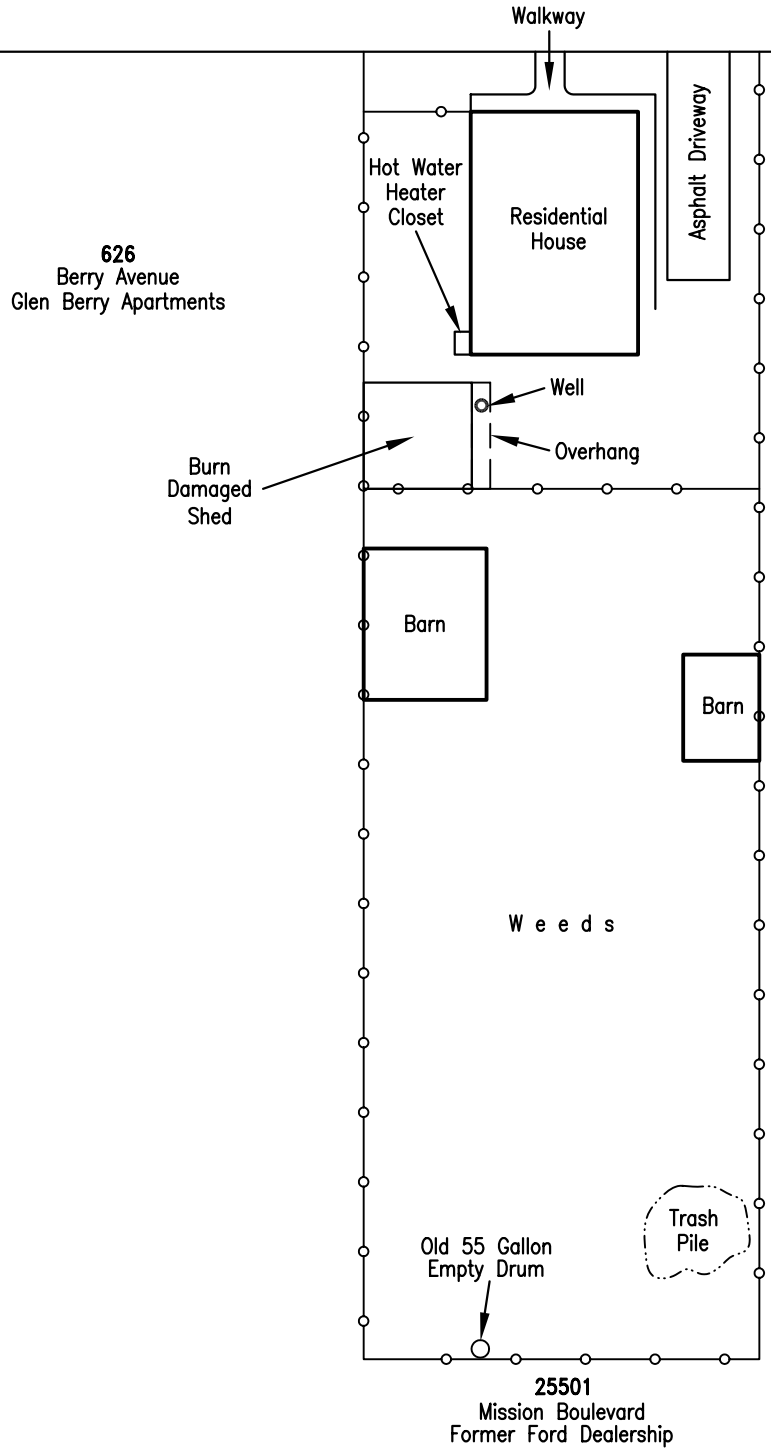
FIRSTSEARCH

671 BERRY AVE, HAYWARD CA 94544


Greyhound Bus Sta
Hayward High School
Bret Harte Intermediate School
All Saints Cemetery
Hillcrest School
Highland Elementary School
Winton Middle School
John Muir Elementary School
Harder Elementary School
Good Shepherd Lutheran Es
Holy Sepulchre Cemetery
Sorensen School
Moreau Catholic High School
Bowman Elementary School
Schafer Park Elementary School
Glassbrook Elementary School
Tennyson High School
Hayward Memorial Park
Spring Grove Park
Schafer Park
Sorensdale Park
Eden Greenway
California State Unive
Beckham Ln
Nina Ct
Nina St
2nd St
Oakridge Ct
Meek Ave
Winton Ave
Sycamore Ave
Orchard Ave
Osborn Ave
Berry Ave
Eastman St
Newton St
Virginia St
Goodrich St
Isabella St
Gloria St
Edwin Way
Sorensen Rd
Newhall St
Schafer Rd
Evans Ct
Calhoun St
Broadway St
Douglas St
Webster St
West Loop Rd
Eldridge Ave
W Harder Rd
Tarman Ave
Cypress Ave
W Jackson St
Foothill Blvd
E St
B St
Walpert St
Bland St
Carmel Ct
Patricia Ct
Dean St
Meek Ave
Pinedale Ct
Lilly St
Ellen Ave
Alves St
Joyce St
Thomas Ave
Arvilla Ln
Dale St
Muir St
Tioga Rd
Evelyn Ln
Frederic Ave
Pleasant Way
Lucien Way
Silverthorne Pl
Huntwood Ave
Austin Ave
Franklin Ave
Lund Ave
Clay Ave
Dollar St
Bel Aire Dr
Bryn Mawr Ave
Spring Dr
Westview Way
Tyrone Ave
Overlook Ave
Redstone Pl
Paintbrush Plz
Hayward Ct
Carisbrook
Leona Dr
Marie Dr
Margaret Dr
Sybil Ln
Mission Blvd
Jane Ave
Luvena Dr
Jacaranda Dr
Coleman Ave
Ventura Ave
Taft St
Grading Rd
Mocine Ave
Tarrago Ave
Adeline St
Mackenzie Pl
Hunwen Pl
Ranker Pl
Whitman
Cabot Blvd
Alice St
Grand St
Spire St
Paseo Pl
Watkins St
Alley
Myrtle St
Optimist St
Park St
D St
Dean St
Oakridge Ct
Bland St
Nina St
Nina Ct
Beckham Ln
Carisbrook
Hayward Ct
Paintbrush Plz
Overlook Ave
Redstone Pl
Leona Dr
Marie Dr
Margaret Dr
Sybil Ln
Mission Blvd

626
Berry Avenue
Residential House

BERRY AVENUE



PROPERTY SITE PLAN **FIGURE 2**

Project No. 12062
671 Berry Avenue
Hayward, California

April, 2012
Not to Scale

ERAS Environmental

APPENDIX C

PROPERTY PHOTOGRAPHS



Photograph 1 – View of the residential house



Photograph 2 – View of the parking area



Photograph 3 - View of an out building



Photograph 4 - View of an out building



Photograph 5 - View of an out building



Photograph 6 - View of vacant field on the southeastern side of Property



Photograph 7 - View of the interior of the house



Photograph 8 - View of the crawl space



Photograph 9 - View of the burn damaged out building



Photograph 10 - View of the domestic well

APPENDIX D

FSTC ENVIRONMENTAL FIRSTSEARCH REPORT

FIRSTSEARCH

ENVIRONMENTAL INFORMATION REPORT

TARGET PROPERTY:

671 BERRY AVE

HAYWARD CA 94544

JOB NUMBER: 12062

PREPARED FOR:

ERAS Environmental, Inc.

1533 B Street

Hayward, CA 94541

March 30, 2012

Environmental FirstSearch
Search Summary Report

Target Site: 671 BERRY AVE
HAYWARD CA 94544

FirstSearch Summary

Database	Sel	Updated	Radius	Site	1/8	1/4	1/2	1/2>	ZIP	TOTALS
NPL	Y	02-01-12	1.00	0	0	0	0	0	0	0
NPL Delisted	Y	02-01-12	0.50	0	0	0	0	-	0	0
CERCLIS	Y	02-27-12	0.50	0	0	1	0	-	0	1
NFRAP	Y	02-27-12	0.50	0	0	0	0	-	0	0
RCRA COR ACT	Y	01-10-12	1.00	0	0	0	0	0	0	0
RCRA TSD	Y	01-10-12	0.50	0	0	0	0	-	0	0
RCRA GEN	Y	01-10-12	0.25	0	3	5	-	-	0	8
RCRA NLR	Y	01-10-12	0.12	0	0	-	-	-	0	0
Federal Brownfield	Y	02-01-12	0.25	0	0	0	-	-	0	0
ERNS	Y	01-11-12	0.12	0	0	-	-	-	6	6
Tribal Lands	Y	12-01-05	1.00	0	0	0	0	0	1	1
State/Tribal Sites	Y	02-08-12	1.00	0	0	0	0	1	0	1
State Spills 90	Y	01-10-12	0.12	0	0	-	-	-	0	0
State/Tribal SWL	Y	01-10-12	0.50	0	0	0	0	-	0	0
State/Tribal LUST	Y	01-10-12	0.50	0	2	4	9	-	0	15
State/Tribal UST/AST	Y	06-13-11	0.25	0	3	5	-	-	0	8
State/Tribal EC	Y	NA	0.25	0	0	0	-	-	0	0
State/Tribal IC	Y	01-18-12	0.25	0	0	0	-	-	0	0
State/Tribal VCP	Y	02-08-12	0.50	0	0	0	0	-	0	0
State/Tribal Brownfields	Y	NA	0.25	0	0	0	-	-	0	0
State Permits	Y	01-10-12	0.12	0	0	-	-	-	0	0
State Other	Y	02-08-12	0.25	0	0	0	-	-	0	0
Federal IC/EC	Y	03-13-12	0.25	0	0	0	-	-	0	0
HW Manifest	Y	08-02-10	0.12	0	3	-	-	-	0	3
-TOTALS-				0	11	15	9	1	7	43

Notice of Disclaimer

Due to the limitations, constraints, and inaccuracies and incompleteness of government information and computer mapping data currently available to FirstSearch Technology Corp., certain conventions have been utilized in preparing the locations of all federal, state and local agency sites residing in FirstSearch Technology Corp.'s databases. All EPA NPL and state landfill sites are depicted by a rectangle approximating their location and size. The boundaries of the rectangles represent the eastern and western most longitudes; the northern and southern most latitudes. As such, the mapped areas may exceed the actual areas and do not represent the actual boundaries of these properties. All other sites are depicted by a point representing their approximate address location and make no attempt to represent the actual areas of the associated property. Actual boundaries and locations of individual properties can be found in the files residing at the agency responsible for such information.

Waiver of Liability

Although FirstSearch Technology Corp. uses its best efforts to research the actual location of each site, FirstSearch Technology Corp. does not and can not warrant the accuracy of these sites with regard to exact location and size. All authorized users of FirstSearch Technology Corp.'s services proceeding are signifying an understanding of FirstSeaarch Technology Corp.'s searching and mapping conventions, and agree to waive any and all liability claims associated with search and map results showing incomplete and or inaccurate site locations.

Environmental FirstSearch
Site Information Report

Request Date:	03-30-12	**Search Type:**	COORD
Requestor Name:	Kasey	**Job Number:**	12062
Standard:	ASTM-05	Filtered Report	

Target Site: 671 BERRY AVE
HAYWARD CA 94544

Demographics

Sites:	43	**Non-Geocoded:**	7	**Population:**	NA
Radon:	-0.9 - 1.2 PCI/L				

Site Location

	Degrees (Decimal)	Degrees (Min/Sec)		UTMs
Longitude:	-122.073020	-122:4:23	**Easting:**	581768.338
Latitude:	37.655859	37:39:21	**Northing:**	4167832.255
Elevation:	66		**Zone:**	10

Comment

Comment:

Additional Requests/Services

Adjacent ZIP Codes:

ZIP Code	City Name	ST	Dist/Dir	Sel

Services:

	Requested?	Date
Fire Insurance Maps	No	
Aerial Photographs	No	
Historical Topos	No	
City Directories	No	
Title Search	No	
Municipal Reports	No	
Liens	No	
Historic Map Works	No	
Online Topos	Yes	03-30-12

Environmental FirstSearch
Target Site Summary Report

Target Property: 671 BERRY AVE
HAYWARD CA 94544

JOB: 12062

TOTAL:	43	GEOCODED:	36	NON GEOCODED:	7	SELECTED:	0

Map ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	ElevDiff	Page No.

No sites found for target address

Environmental FirstSearch
Sites Summary Report

Target Property: 671 BERRY AVE
HAYWARD CA 94544

JOB: 12062

TOTAL: 43 **GEOCODED:** 36 **NON GEOCODED:** 7 **SELECTED:** 0

Map ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	ElevDiff	Page No.
1	RCRAGN	HAYWARD FORD CAD983615378/SGN	25501 MISSION BLVD HAYWARD CA 94544	0.08 SE	- 4	1
1	UST	HAYWARD FORD TISID-STATE540/INACTIVE	25501 MISSION HAYWARD CA	0.08 SE	- 4	3
1	LUST	FORMER HAYWARD FORD T0600101040/OPEN - VERIFICATION MONITORING	25501 MISSION BLVD HAYWARD CA 94544	0.08 SE	- 4	4
2	UST	PSI#9536/ARCO #9536 (PRESTIGE/THRI HAYWARDCITY00706_01/	25225 MISSION BLVD HAYWARD CA	0.09 NE	+ 1	5
2	UST	THRIFTY OIL STN. #055 TISID-STATE12206/ACTIVE	25225 MISSION BLVD HAYWARD CA 94541	0.09 NE	+ 1	6
2	LUST	THRIFTY OIL T0600101364/COMPLETED - CASE CLOSED	25225 MISSION BLVD HAYWARD CA 94541	0.09 NE	+ 1	7
2	HWMANIFE	BP WEST COAST PRODUCTS LLC 09536 CAL000244459/ACTIVE	25225 MISSION BLVD HAYWARD CA 94541	0.09 NE	+ 1	8
3	RCRAGN	KEITH S BODY SHOP CAD028287258/SGN	25401 MISSION BLVD HAYWARD CA 94544	0.12 NE	- 1	9
4	RCRAGN	VOLKSWAGEN OF HAYWARD CAR000151746/SGN	25115 MISSION BLVD HAYWARD CA 94544	0.12 NW	+ 6	11
4	HWMANIFE	TEAM VOLKSWAGEN CAL000281668/ACTIVE	25115 MISSION BLVD HAYWARD CA 94544	0.12 NW	+ 6	13
5	HWMANIFE	WAYNES AUTOMOTIVE WORLD LLC CAL000326055/ACTIVE	25417 MISSION BLVD HAYWARD CA 94544	0.12 SE	- 1	14
6	RCRAGN	WILMAS COLLISION REPAIR CAD982462137/SGN	25571 DOLLAR ST HAYWARD CA 94544	0.13 SE	- 6	15
6	UST	WILMAS COLLISION REPAIR TISID-STATE959/INACTIVE	25571 DOLLAR HAYWARD CA 94544	0.13 SE	- 6	17
7	LUST	MENEZE PROPERTY T0600101717/COMPLETED - CASE CLOSED	25336 MISSION BLVD HAYWARD CA 94544	0.13 NE	0	18
8	RCRAGN	SHANKLINS BODY SHOP CAD982004830/SGN	25486 MISSION BLVD HAYWARD CA 94544	0.15 NE	0	19
9	RCRAGN	HAYWARD BODY SHOP CAD981416233/SGN	25087 MISSION BLVD HAYWARD CA 94544	0.18 NE	+ 10	20
10	RCRAGN	HAYWARD DODGE CHRYSLER PLYMOUTH CAD981443302/SGN	25601 MISSION BLVD HAYWARD CA 94544	0.19 SE	- 6	22
10	UST	HAYWARD DATSUN CHRYSLER PLY. TISID-STATE12233/ACTIVE	25601 MISSION BLVD HAYWARD CA 94560	0.19 SE	- 6	23
10	LUST	HAYWARD DODGE INC T0600101683/OPEN - SITE ASSESSMENT	25601 MISSION BLVD HAYWARD CA 94544	0.19 SE	- 6	24
11	UST	NELSON T LEWIS CONSTRUCTION CO, IN HAYWARDCITY00387_01/	25001 O NEIL AVE HAYWARD CA	0.22 NW	+ 14	25

Environmental FirstSearch
Sites Summary Report

Target Property: 671 BERRY AVE
HAYWARD CA 94544

JOB: 12062

TOTAL: 43 **GEOCODED:** 36 **NON GEOCODED:** 7 **SELECTED:** 0

Map ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	ElevDiff	Page No.
11	UST	NELSON T. LEWIS CONSTRUCTIO CO TISID-STATE12318/ACTIVE	25001 O NEIL HAYWARD CA 94544	0.22 NW	+ 14	26
12	UST	PHIL-CO MOTORS TISID-STATE1052/INACTIVE	25030 MISSION HAYWARD CA	0.23 NE	+ 16	27
12	LUST	CALTRANS PROPERTY T0600100241/OPEN - VERIFICATION MONITORING	25030 MISSION BLVD HAYWARD CA 94544	0.23 NE	+ 16	28
13	CERCLIS	ALAMEDA COUNTY MERCURY MYSTERY CAN000908818/NOT PROPOSED	25514 DEL MAR AVE HAYWARD CA	0.24 NE	+ 7	29
14	LUST	MAURY COX VANS T0600100874/COMPLETED - CASE CLOSED	25700 MISSION BLVD HAYWARD CA 94544	0.24 SE	- 6	30
15	RCRAGN	CORLEY S AUTO REPAIR CAD980891469/SGN	24915 ONEIL AVE HAYWARD CA 94544	0.25 NW	+ 16	31
16	LUST	CHEVRON T0600100320/COMPLETED - CASE CLOSED	24874 MISSION BLVD HAYWARD CA 94544	0.34 NW	+ 29	32
17	LUST	HAYWARD TOYOTA PROPERTY T0600100685/OPEN - VERIFICATION MONITORING	24773 MISSION BLVD HAYWARD CA 94544	0.38 NW	+ 23	33
18	LUST	FORMER HAYWARD NISSAN PROPERTY T0600101460/OPEN - VERIFICATION MONITORING	25995 MISSION BLVD HAYWARD CA 94544	0.41 SE	0	34
19	LUST	PAHLMEYER PROPERTY 01-1881/LEAK BEING CONFIRMED	214 HARDER RD HAYWARD CA 94544	0.43 SW	- 14	35
20	LUST	OIL CHANGER NO. 302 T0600101003/COMPLETED - CASE CLOSED	26070 MISSION BLVD HAYWARD CA 94544	0.45 SE	+ 11	36
21	LUST	UNOCAL T0600101799/COMPLETED - CASE CLOSED	26091 MISSION BLVD HAYWARD CA 94544	0.45 SE	+ 6	37
22	LUST	MISSION LINCOLN MERCURY INC T0600101718/COMPLETED - CASE CLOSED	24644 MISSION BLVD HAYWARD CA 94544	0.46 NW	+ 34	38
23	LUST	A & G GAS T0600191154/COMPLETED - CASE CLOSED	25757 SOTO RD HAYWARD CA 94544	0.49 SW	- 16	39
24	LUST	FUJIIS PLANT OUTLET T0600100619/COMPLETED - CASE CLOSED	24949 SOTO RD HAYWARD CA 94544	0.50 SW	+ 1	40
25	STATE	JACKSON STREET LUMBER COMPANY CAL01240033/NO FURTHER ACTION	73 W JACKSON ST HAYWARD CA 94544	0.87 SW	+ 2	41

Environmental FirstSearch
Sites Summary Report

Target Property: 671 BERRY AVE
HAYWARD CA 94544

JOB: 12062

TOTAL: 43 **GEOCODED:** 36 **NON GEOCODED:** 7 **SELECTED:** 0

Map ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	ElevDiff	Page No.
	ERNS	BAY PEST CONTROL 228897/HIGHWAY RELATED	MISSION AND FREEWAY, HAYWA HAYWARD CA 94545	NON GC	N/A	N/A
	ERNS	BAY PEST CONTROL 228893/HIGHWAY RELATED	MISSION AND FAIRWAY, HAYWA HAYWARD CA 94545	NON GC	N/A	N/A
	ERNS	BAY PEST CONTROL 466960/HIGHWAY RELATED	INTERSECTION MISSION AND F HAYWARD CA 94545	NON GC	N/A	N/A
	ERNS	CALTRANS 227315/HIGHWAY RELATED	INTERSECTION MISSION BLVD HAYWARD CA 94541	NON GC	N/A	N/A
	ERNS	UNK 15792/UNKNOWN	SB MISSION ST/N OF: TENNYS HAYWARD CA 94544	NON GC	N/A	N/A
	ERNS	UNKNOWN 231430/FIXED FACILITY	2400 MISSIN BLVD MISSION LO HAYWARD CA 94544	NON GC	N/A	N/A
	TRIBALLA	BUREAU OF INDIAN AFFAIRS CONTACT I BIA-94544/	UNKNOWN CA 94544	NON GC	N/A	N/A

Environmental FirstSearch
Site Detail Report

Target Property: 671 BERRY AVE
HAYWARD CA 94544

JOB: 12062

RCRAGN

SEARCH ID: 5 **DIST/DIR:** 0.08 SE **ELEVATION:** 62 **MAP ID:** 1

NAME:	HAYWARD FORD	**REV:**	1/10/12
ADDRESS:	25501 MISSION BLVD	**ID1:**	CAD983615378
	HAYWARD CA 94544	**ID2:**	
	ALAMEDA	**STATUS:**	SGN
CONTACT:		**PHONE:**	
SOURCE:	EPA		

SITE INFORMATION

CONTACT INFORMATION: ALAN L WALDIE
25501 MISSION BLVD
HAYWARD CA 94544

PHONE: 510-881-1200

OWNER NAME:HAYWARD FORD INC
OWNER TYPE:P-PRIVATE
OPERATOR:ALAN WALDIE
OPERATOR_TYPE:P-PRIVATE
MAILING ADDRESS: 25501 MISSION BLVD
HAYWARD, CA 94544

UNIVERSE INFORMATION:

RECEIVED DATE:06/29/2005

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:N - NO
SUBJCA TSD 3004:N - NO
SUBJCA NON TSD:N - NO
SIGNIFICANT NON-COMPLIANCE(SNC):N - NO
BEGINNING OF THE YEAR SNC:
PERMIT WORKLOAD:-----
CLOSURE WORKLOAD:-----
POST CLOSURE WORKLOAD:-----
PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:-----
CORRECTIVE ACTION WORKLOAD:N - NO
GENERATOR STATUS:SQG - SMALL QUANTITY GENERATOR: GENERATES 100 - 1000 KG/MONTH OF HAZARDOUS WASTE

INSTITUTIONAL CONTROL:N-NOENGINEERING CONTROL:N
HUMAN EXPOSURE:N-NOGW CONTROLS:N- NO
LAND TYPE:P-PRIVATESHORT TERM GEN:N
TRANS FACILITY:NREC WASTE FROM OFF SITE:N

IMPORTER ACTIVITY:N - NOMIXED WASTE GEN:N - NO
TRANS ACTIVITY:N - NOTSD ACTIVITY:N - NO
RECYCLER ACTIVITY:N - NOONSITE BURNER EXEMPT:N - NO
FURNACE EXEMPTION:N - NOUNDER INJECT ACTIVITY:N - NO
REC WASTE FROM OFF SITE:N - NOUNIV WASTE DEST FAC:N
USED OIL TRANS:N - NOUSED OIL PROCESSOR:N - NO
USED OIL REFINER:N - NOUSED OIL FUEL BURNER:N - NO
UO FUEL MARKETER TO BURNER:NUSED OIL SPEC MARKETER:N - NO

NAIC INFORMATION

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: 671 BERRY AVE
HAYWARD CA 94544

JOB: 12062

RCRAGN

SEARCH ID: 5 **DIST/DIR:** 0.08 SE **ELEVATION:** 62 **MAP ID:** 1

NAME: HAYWARD FORD
ADDRESS: 25501 MISSION BLVD
HAYWARD CA 94544
ALAMEDA
CONTACT:
SOURCE: EPA

REV: 1/10/12
ID1: CAD983615378
ID2:
STATUS: SGN
PHONE:

- NEW CAR DEALERS
44112 - USED CAR DEALERS

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

HAZARDOUS WASTE INFORMATION:

D002 - CORROSIVE WASTE
D008 - LEAD

Environmental FirstSearch
Site Detail Report

Target Property: 671 BERRY AVE
HAYWARD CA 94544

JOB: 12062

UST

SEARCH ID: 12 **DIST/DIR:** 0.08 SE **ELEVATION:** 62 **MAP ID:** 1

NAME: HAYWARD FORD
ADDRESS: 25501 MISSION
HAYWARD CA
ALAMEDA
CONTACT:
SOURCE:

REV: 01/01/94
ID1: TISID-STATE540
ID2:
STATUS: INACTIVE
PHONE:

UST HISTORICAL DATA
This site was listed in the FIDS Zip Code List as a UST site. The Office of Hazardous Data Management produced the FIDS list. The FIDS list is an index of names & locations of sites recorded in various California State environmental agency databases. It is sorted by zip code and as an index, details regarding the sites were never included.
The UST information included in FIDS as provided by the Office of Hazardous Data Management was originally collected from the SWEEPS database. The SWEEPS database recorded Underground Storage Tanks and was maintained by the State Water Resources Control Board (SWRCB). That agency no longer maintains the SWEEPS database and last updated it in 1994. The last release of that 1994 database was in 1997.
Oversight of Underground Storage Tanks within California is now conducted by Certified Unified Program Agencies referred to as CUPA s. There are approximately 102 CUPA s and Local Oversight Programs (LOP s) in the State of California. Most are city or county government agencies. As of 1998, all sites or facilities with underground storage tanks were required by Federal mandate to obtain certification by designated UST oversight agencies (in this case, CUPA s) that the UST/s at their location were upgraded or removed in adherence with the 1998 RCRA standards.
Information from the FIDS/SWEEPS lists were included in this report search to help identify where underground storage tanks may have existed that were not recorded in CUPA databases or lists collected by us. This may occur if a tank was removed prior to development of recent CUPA UST lists or never registered with a CUPA.

Environmental FirstSearch
Site Detail Report

Target Property: 671 BERRY AVE
HAYWARD CA 94544

JOB: 12062

LUST

SEARCH ID: 22 **DIST/DIR:** 0.08 SE **ELEVATION:** 62 **MAP ID:** 1

NAME:	FORMER HAYWARD FORD	**REV:**	01/10/12
ADDRESS:	25501 MISSION BLVD	**ID1:**	T0600101040
	HAYWARD CA 94544	**ID2:**	
	ALAMEDA	**STATUS:**	OPEN - VERIFICATION MONITORING
CONTACT:		**PHONE:**	
SOURCE:	CA SWRCB		

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE
Please note that some data previously provided by the State Water Resources Control Board in the LUSTIS database is not currently being provided by the agency in the most recent edition. Incidents that occurred after the year 2000 may not have much information. Field headers with blank information following after should be interpreted as unreported by the agency.

LEAD AGENCY: HAYWARD, CITY OF
REGIONAL BOARD CASE NUMBER: 01-1130
LOCAL AGENCY: HAYWARD, CITY OF
LOCAL CASE NUMBER: 01-1130

CASE TYPE: LUST Cleanup Site
POTENTIAL CONTAMINANTS OF CONCERN: Diesel
POTENTIAL MEDIA AFFECTED: Soil
STATUS: Open - Verification Monitoring
STATUS DATE: 2008-04-09 00:00:00
SITE HISTORY (blank if not reported):

ACTION TYPE (blank if not reported): ENFORCEMENT
DATE (blank if not reported): 2008-07-18 00:00:00
ACTION (blank if not reported): Notice to Comply

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Reported

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Stopped

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Discovery

Environmental FirstSearch
Site Detail Report

Target Property: 671 BERRY AVE
HAYWARD CA 94544

JOB: 12062

UST

SEARCH ID: 16 **DIST/DIR:** 0.09 NE **ELEVATION:** 67 **MAP ID:** 2

NAME:	PSI#9536/ARCO #9536 (PRESTIGE/THRIFTY)	**REV:**	06/28/2000
ADDRESS:	25225 MISSION BLVD	**ID1:**	HAYWARDCITY00706_01
	HAYWARD CA	**ID2:**	
	ALAMEDA	**STATUS:**	
CONTACT:		**PHONE:**	
SOURCE:			

HAYWARD CITY TANKS LIST INFORMATION:
According to the City of Hayward Fire Dept. the following information is current as of 05/27/03

Number of Motor Vehicle Fuel Tanks: 3
Number of Non Motor Vehicle Fuel Tanks: 0

Environmental FirstSearch
Site Detail Report

Target Property: 671 BERRY AVE
HAYWARD CA 94544

JOB: 12062

UST

SEARCH ID: 17 **DIST/DIR:** 0.09 NE **ELEVATION:** 67 **MAP ID:** 2

NAME:	THRIFTY OIL STN. #055	**REV:**	01/01/94
ADDRESS:	25225 MISSION BLVD	**ID1:**	TISID-STATE12206
	HAYWARD CA 94541	**ID2:**	
	ALAMEDA	**STATUS:**	ACTIVE
CONTACT:		**PHONE:**	
SOURCE:			

UST HISTORICAL DATA
This site was listed in the FIDS Zip Code List as a UST site. The Office of Hazardous Data Management produced the FIDS list. The FIDS list is an index of names & locations of sites recorded in various California State environmental agency databases. It is sorted by zip code and as an index, details regarding the sites were never included.
The UST information included in FIDS as provided by the Office of Hazardous Data Management was originally collected from the SWEEPS database. The SWEEPS database recorded Underground Storage Tanks and was maintained by the State Water Resources Control Board (SWRCB). That agency no longer maintains the SWEEPS database and last updated it in 1994. The last release of that 1994 database was in 1997.
Oversight of Underground Storage Tanks within California is now conducted by Certified Unified Program Agencies referred to as CUPA s. There are approximately 102 CUPA s and Local Oversight Programs (LOP s) in the State of California. Most are city or county government agencies. As of 1998, all sites or facilities with underground storage tanks were required by Federal mandate to obtain certification by designated UST oversight agencies (in this case, CUPA s) that the UST/s at their location were upgraded or removed in adherence with the 1998 RCRA standards.
Information from the FIDS/SWEEPS lists were included in this report search to help identify where underground storage tanks may have existed that were not recorded in CUPA databases or lists collected by us. This may occur if a tank was removed prior to development of recent CUPA UST lists or never registered with a CUPA.

Environmental FirstSearch
Site Detail Report

Target Property: 671 BERRY AVE
HAYWARD CA 94544

JOB: 12062

LUST

SEARCH ID: 32 **DIST/DIR:** 0.09 NE **ELEVATION:** 67 **MAP ID:** 2

NAME: THRIFTY OIL
ADDRESS: 25225 MISSION BLVD
HAYWARD CA 94541
ALAMEDA
CONTACT:
SOURCE: CA SWRCB

REV: 01/10/12
ID1: T0600101364
ID2:
STATUS: COMPLETED - CASE CLOSED
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE
Please note that some data previously provided by the State Water Resources Control Board in the LUSTIS database is not currently being provided by the agency in the most recent edition. Incidents that occurred after the year 2000 may not have much information. Field headers with blank information following after should be interpreted as unreported by the agency.

LEAD AGENCY: HAYWARD, CITY OF
REGIONAL BOARD CASE NUMBER: 01-1477
LOCAL AGENCY: HAYWARD, CITY OF
LOCAL CASE NUMBER: 01-1477

CASE TYPE: LUST Cleanup Site
POTENTIAL CONTAMINANTS OF CONCERN: Gasoline
POTENTIAL MEDIA AFFECTED: Other Groundwater (uses other than drinking water)
STATUS: Completed - Case Closed
STATUS DATE: 2001-10-22 00:00:00
SITE HISTORY (blank if not reported):

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Stopped

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Discovery

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Reported

Environmental FirstSearch
Site Detail Report

Target Property: 671 BERRY AVE
HAYWARD CA 94544

JOB: 12062

HWMANIFEST

SEARCH ID: 34 **DIST/DIR:** 0.09 NE **ELEVATION:** 67 **MAP ID:** 2

NAME: BP WEST COAST PRODUCTS LLC 09536
ADDRESS: 25225 MISSION BLVD
HAYWARD CA 94541
ALAMEDA
CONTACT:
SOURCE: CA DTSC

REV: 02/19/10
ID1: CAL000244459
ID2:
STATUS: ACTIVE
PHONE:

THE CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL HAZARDOUS WASTE MANIFEST INVENTORY (HWMI) SITE INFORMATION FROM THE CA EPA AND DTSC HAZARDOUS WASTE TRACKING SYSTEM (HWTS) :
Date Record was Created: 12/31/2001
Inactivity Date:
Facility Mail Name:
Facility Mailing Address: PO BOX 80249, RCHO STA MARG, CA 92688-0000
Owner Name: BP WEST COAST PRODUCTS LLC
Owner Address: PO BOX 6038, ARTESIA, CA 90702-6038
Contact Name: RUTH HA / WASTE SPECIALIST
Contact Address: PO BOX 6038, ARTESIA, CA 90702-0000
Contact Phone: 5035246191

HWMI WASTE TYPE AND TONNAGE INFORMATION BY YEAR 2005-2009:
2009 Method Type: LANDFILL OR SURFACE IMPOUNDMENT THAT WILL BE CLOSED AS LANDFILL(TO INCLUDE ON-SITE TREATMENT AND/OR STABILIZATION)
2009 Waste Type: Other organic solids
2009 Total Tonnage: 0.085
2008 Waste Type: Other organic solids
2008 Total Tonnage: 0.1
2007 Waste Type: Aqueous solution with total organic residues less than 10 percent
2007 Total Tonnage: 0.06255
2006 Waste Type: Aqueous solution with total organic residues less than 10 percent
2006 Total Tonnage: 0.12
2005 Waste Type: Aqueous solution with total organic residues less than 10 percent
2005 Total Tonnage: 0.62

HWMI WASTE TYPE AND TONNAGE INFORMATION BY YEAR 2000-2004:
2004 Waste Type: Aqueous solution with total organic residues less than 10 percent
2004 Total Tonnage: 0.2
2003 Waste Type: Aqueous solution with total organic residues less than 10 percent
2003 Total Tonnage: 0.41
2002 Waste Type: Aqueous solution with total organic residues less than 10 percent
2002 Total Tonnage: 4.17
2001 Waste Type:
2001 Total Tonnage:
2000 Waste Type:
2000 Total Tonnage:

HWMI WASTE TYPE AND TONNAGE INFORMATION BY YEAR 1993-1999:
1999 Waste Type:
1999 Total Tonnage:
1998 Waste Type:
1998 Total Tonnage:
1997 Waste Type:
1997 Total Tonnage:
1996 Waste Type:
1996 Total Tonnage:
1995 Waste Type:
1995 Total Tonnage:
1994 Waste Type:
1994 Total Tonnage:
1993 Waste Type:
1993 Total Tonnage:

Environmental FirstSearch
Site Detail Report

Target Property: 671 BERRY AVE
HAYWARD CA 94544

JOB: 12062

RCRAGN

SEARCH ID: 6 **DIST/DIR:** 0.12 NE **ELEVATION:** 65 **MAP ID:** 3

NAME:	KEITH S BODY SHOP	**REV:**	1/10/12
ADDRESS:	25401 MISSION BLVD	**ID1:**	CAD028287258
	HAYWARD CA 94544	**ID2:**	
	ALAMEDA	**STATUS:**	SGN
CONTACT:		**PHONE:**	
SOURCE:	EPA		

SITE INFORMATION

CONTACT INFORMATION: ENVIRONMENTAL MANAGER
25401 MISSION BLVD
HAYWARD CA 94544

PHONE: 4155384073

OWNER NAME:GAMEZ STEVE
OWNER TYPE:P-PRIVATE
OPERATOR:NOT REQUIRED
OPERATOR_TYPE:P-PRIVATE
MAILING ADDRESS: 25401 MISSION BLVD
HAYWARD, CA 94544

UNIVERSE INFORMATION:

RECEIVED DATE:07/25/1986

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:N - NO
SUBJCA TSD 3004:N - NO
SUBJCA NON TSD:N - NO
SIGNIFICANT NON-COMPLIANCE(SNC):N - NO
BEGINNING OF THE YEAR SNC:
PERMIT WORKLOAD:-----
CLOSURE WORKLOAD:-----
POST CLOSURE WORKLOAD:-----
PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:-----
CORRECTIVE ACTION WORKLOAD:N - NO
GENERATOR STATUS:SQG - SMALL QUANTITY GENERATOR: GENERATES 100 - 1000 KG/MONTH OF HAZARDOUS WASTE

INSTITUTIONAL CONTROL:N-NOENGINEERING CONTROL:N
HUMAN EXPOSURE:N-NOGW CONTROLS:N- NO
LAND TYPE:O-OTHERSHORT TERM GEN:N
TRANS FACILITY:NREC WASTE FROM OFF SITE:N

IMPORTER ACTIVITY:N - NOMIXED WASTE GEN:N - NO
TRANS ACTIVITY:N - NOTSD ACTIVITY:N - NO
RECYCLER ACTIVITY:N - NOONSITE BURNER EXEMPT:N - NO
FURNACE EXEMPTION:N - NOUNDER INJECT ACTIVITY:N - NO
REC WASTE FROM OFF SITE:N - NOUNIV WASTE DEST FAC:N
USED OIL TRANS:N - NOUSED OIL PROCESSOR:N - NO
USED OIL REFINER:N - NOUSED OIL FUEL BURNER:N - NO
UO FUEL MARKETER TO BURNER:NUSED OIL SPEC MARKETER:N - NO

NAIC INFORMATION

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: 671 BERRY AVE
HAYWARD CA 94544

JOB: 12062

RCRAGN

SEARCH ID: 6 **DIST/DIR:** 0.12 NE **ELEVATION:** 65 **MAP ID:** 3

NAME:	KEITH S BODY SHOP	**REV:**	1/10/12
ADDRESS:	25401 MISSION BLVD	**ID1:**	CAD028287258
	HAYWARD CA 94544	**ID2:**	
	ALAMEDA	**STATUS:**	SGN
CONTACT:		**PHONE:**	
SOURCE:	EPA		

- AUTOMOTIVE BODY, PAINT, AND INTERIOR REPAIR AND MAINTENANCE

ENFORCEMENT INFORMATION:

Target Property: 671 BERRY AVE
HAYWARD CA 94544

JOB: 12062

RCRAGN

SEARCH ID: 8 **DIST/DIR:** 0.12 NW **ELEVATION:** 72 **MAP ID:** 4

NAME:	VOLKSWAGEN OF HAYWARD	**REV:**	1/10/12
ADDRESS:	25115 MISSION BLVD	**ID1:**	CAR000151746
	HAYWARD CA 94544	**ID2:**	
	ALAMEDA	**STATUS:**	SGN
CONTACT:		**PHONE:**	
SOURCE:	EPA		

SITE INFORMATION

CONTACT INFORMATION: CHRIS NICKERSON
25115 MISSION BLVD
HAYWARD CA 94544

PHONE: 510-886-9446

OWNER NAME:MATT ZAHERI
OWNER TYPE:P-PRIVATE
OPERATOR:MATT ZAHERI
OPERATOR_TYPE:P-PRIVATE
MAILING ADDRESS: 25115 MISSION BLVD
HAYWARD, CA 94544

UNIVERSE INFORMATION:

RECEIVED DATE:03/15/2004

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:N - NO
SUBJCA TSD 3004:N - NO
SUBJCA NON TSD:N - NO
SIGNIFICANT NON-COMPLIANCE(SNC):N - NO
BEGINNING OF THE YEAR SNC:
PERMIT WORKLOAD:-----
CLOSURE WORKLOAD:-----
POST CLOSURE WORKLOAD:-----
PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:-----
CORRECTIVE ACTION WORKLOAD:N - NO
GENERATOR STATUS:SQG - SMALL QUANTITY GENERATOR: GENERATES 100 - 1000 KG/MONTH OF HAZARDOUS WASTE

INSTITUTIONAL CONTROL:N-NOENGINEERING CONTROL:N
HUMAN EXPOSURE:N-NOGW CONTROLS:N- NO
LAND TYPE:P-PRIVATESHORT TERM GEN:N
TRANS FACILITY:NREC WASTE FROM OFF SITE:N

IMPORTER ACTIVITY:N - NOMIXED WASTE GEN:N - NO
TRANS ACTIVITY:N - NOTSD ACTIVITY:N - NO
RECYCLER ACTIVITY:N - NOONSITE BURNER EXEMPT:N - NO
FURNACE EXEMPTION:N - NOUNDER INJECT ACTIVITY:N - NO
REC WASTE FROM OFF SITE:N - NOUNIV WASTE DEST FAC:N
USED OIL TRANS:N - NOUSED OIL PROCESSOR:N - NO
USED OIL REFINER:N - NOUSED OIL FUEL BURNER:N - NO
UO FUEL MARKETER TO BURNER:NUSED OIL SPEC MARKETER:N - NO

NAIC INFORMATION

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: 671 BERRY AVE
HAYWARD CA 94544

JOB: 12062

RCRAGN

SEARCH ID: 8 **DIST/DIR:** 0.12 NW **ELEVATION:** 72 **MAP ID:** 4

NAME: VOLKSWAGEN OF HAYWARD
ADDRESS: 25115 MISSION BLVD
HAYWARD CA 94544
ALAMEDA
CONTACT:
SOURCE: EPA

REV: 1/10/12
ID1: CAR000151746
ID2:
STATUS: SGN
PHONE:

- NEW CAR DEALERS
44112 - USED CAR DEALERS

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

HAZARDOUS WASTE INFORMATION:

D001 - IGNITABLE WASTE

Environmental FirstSearch
Site Detail Report

Target Property: 671 BERRY AVE
HAYWARD CA 94544

JOB: 12062

HWMANIFEST

SEARCH ID: 35 **DIST/DIR:** 0.12 NW **ELEVATION:** 72 **MAP ID:** 4

NAME: TEAM VOLKSWAGEN
ADDRESS: 25115 MISSION BLVD
HAYWARD CA 94544
ALAMEDA
CONTACT:
SOURCE: CA DTSC

REV: 02/19/10
ID1: CAL000281668
ID2:
STATUS: ACTIVE
PHONE:

THE CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL HAZARDOUS WASTE MANIFEST INVENTORY (HWMI) SITE INFORMATION FROM THE CA EPA AND DTSC HAZARDOUS WASTE TRACKING SYSTEM (HWTS) :
Date Record was Created: 4/28/2004 3:22:59 PM
Inactivity Date:
Facility Mail Name:
Facility Mailing Address: 25115 MISSION BLVD, HAYWARD, CA 94544
Owner Name: NATHEW ZAHERI
Owner Address: 25115 MISSION BLVD, HAYWARD, CA 94544
Contact Name: CHRIS NICKERSON
Contact Address: 25115 MISSION BLVD, HAYWARD, CA 94544
Contact Phone: 5108851000

HWMI WASTE TYPE AND TONNAGE INFORMATION BY YEAR 2005-2009:
2009 Method Type:
2009 Waste Type:
2009 Total Tonnage:
2008 Waste Type:
2008 Total Tonnage:
2007 Waste Type: Unspecified organic liquid mixture
2007 Total Tonnage: 1.251
2006 Waste Type: Unspecified organic liquid mixture
2006 Total Tonnage: 0.18
2005 Waste Type: Unspecified organic liquid mixture
2005 Total Tonnage: 1.27

HWMI WASTE TYPE AND TONNAGE INFORMATION BY YEAR 2000-2004:
2004 Waste Type: Unspecified oil-containing waste
2004 Total Tonnage: 0.1
2003 Waste Type:
2003 Total Tonnage:
2002 Waste Type:
2002 Total Tonnage:
2001 Waste Type:
2001 Total Tonnage:
2000 Waste Type:
2000 Total Tonnage:

HWMI WASTE TYPE AND TONNAGE INFORMATION BY YEAR 1993-1999:
1999 Waste Type:
1999 Total Tonnage:
1998 Waste Type:
1998 Total Tonnage:
1997 Waste Type:
1997 Total Tonnage:
1996 Waste Type:
1996 Total Tonnage:
1995 Waste Type:
1995 Total Tonnage:
1994 Waste Type:
1994 Total Tonnage:
1993 Waste Type:
1993 Total Tonnage:

Environmental FirstSearch
Site Detail Report

Target Property: 671 BERRY AVE
HAYWARD CA 94544

JOB: 12062

HWMANIFEST

SEARCH ID: 36 **DIST/DIR:** 0.12 SE **ELEVATION:** 65 **MAP ID:** 5

NAME: WAYNES AUTOMOTIVE WORLD LLC
ADDRESS: 25417 MISSION BLVD
HAYWARD CA 94544
ALAMEDA
CONTACT:
SOURCE: CA DTSC

REV: 02/19/10
ID1: CAL000326055
ID2:
STATUS: ACTIVE
PHONE:

THE CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL HAZARDOUS WASTE MANIFEST INVENTORY (HWMI) SITE INFORMATION FROM THE CA EPA AND DTSC HAZARDOUS WASTE TRACKING SYSTEM (HWTS) :
Date Record was Created: 10/23/2007 11:38:35 AM
Inactivity Date:
Facility Mail Name:
Facility Mailing Address: 25417 MISSION BLVD, HAYWARD, CA 94544
Owner Name: WAYNES AUTOMOTIVE WORLD LLC
Owner Address: 25417 MISSION BLVD, HAYWARD, CA 94544
Contact Name: WAYNE CRUZ
Contact Address: 25417 MISSION BLVD, HAYWARD, CA 94544
Contact Phone: 5102471800

HWMI WASTE TYPE AND TONNAGE INFORMATION BY YEAR 2005-2009:
2009 Method Type:
2009 Waste Type:
2009 Total Tonnage:
2008 Waste Type:
2008 Total Tonnage:
2007 Waste Type:
2007 Total Tonnage:
2006 Waste Type:
2006 Total Tonnage:
2005 Waste Type:
2005 Total Tonnage:

HWMI WASTE TYPE AND TONNAGE INFORMATION BY YEAR 2000-2004:
2004 Waste Type:
2004 Total Tonnage:
2003 Waste Type:
2003 Total Tonnage:
2002 Waste Type:
2002 Total Tonnage:
2001 Waste Type:
2001 Total Tonnage:
2000 Waste Type:
2000 Total Tonnage:

HWMI WASTE TYPE AND TONNAGE INFORMATION BY YEAR 1993-1999:
1999 Waste Type:
1999 Total Tonnage:
1998 Waste Type:
1998 Total Tonnage:
1997 Waste Type:
1997 Total Tonnage:
1996 Waste Type:
1996 Total Tonnage:
1995 Waste Type:
1995 Total Tonnage:
1994 Waste Type:
1994 Total Tonnage:
1993 Waste Type:
1993 Total Tonnage:

Target Property: 671 BERRY AVE
HAYWARD CA 94544

JOB: 12062

RCRAGN

SEARCH ID: 9 **DIST/DIR:** 0.13 SE **ELEVATION:** 60 **MAP ID:** 6

NAME:	WILMAS COLLISION REPAIR	**REV:**	1/10/12
ADDRESS:	25571 DOLLAR ST	**ID1:**	CAD982462137
	HAYWARD CA 94544	**ID2:**	
	ALAMEDA	**STATUS:**	SGN
CONTACT:		**PHONE:**	
SOURCE:	EPA		

SITE INFORMATION

CONTACT INFORMATION: ENVIRONMENTAL MANAGER
25571 DOLLAR STREET
HAYWARD CA 94544

PHONE: 4158810106

OWNER NAME:WILMA JOHN
OWNER TYPE:P-PRIVATE
OPERATOR:NOT REQUIRED
OPERATOR_TYPE:P-PRIVATE
MAILING ADDRESS: 25571 DOLLAR STREET
HAYWARD, CA 94544

UNIVERSE INFORMATION:

RECEIVED DATE:12/31/1988

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:N - NO
SUBJCA TSD 3004:N - NO
SUBJCA NON TSD:N - NO
SIGNIFICANT NON-COMPLIANCE(SNC):N - NO
BEGINNING OF THE YEAR SNC:
PERMIT WORKLOAD:-----
CLOSURE WORKLOAD:-----
POST CLOSURE WORKLOAD:-----
PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:-----
CORRECTIVE ACTION WORKLOAD:N - NO
GENERATOR STATUS:SQG - SMALL QUANTITY GENERATOR: GENERATES 100 - 1000 KG/MONTH OF HAZARDOUS WASTE

INSTITUTIONAL CONTROL:N-NOENGINEERING CONTROL:N
HUMAN EXPOSURE:N-NOGW CONTROLS:N- NO
LAND TYPE:O-OTHERSHORT TERM GEN:N
TRANS FACILITY:NREC WASTE FROM OFF SITE:N

IMPORTER ACTIVITY:N - NOMIXED WASTE GEN:N - NO
TRANS ACTIVITY:N - NOTSD ACTIVITY:N - NO
RECYCLER ACTIVITY:N - NOONSITE BURNER EXEMPT:N - NO
FURNACE EXEMPTION:N - NOUNDER INJECT ACTIVITY:N - NO
REC WASTE FROM OFF SITE:N - NOUNIV WASTE DEST FAC:N
USED OIL TRANS:N - NOUSED OIL PROCESSOR:N - NO
USED OIL REFINER:N - NOUSED OIL FUEL BURNER:N - NO
UO FUEL MARKETER TO BURNER:NUSED OIL SPEC MARKETER:N - NO

NAIC INFORMATION

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: 671 BERRY AVE
HAYWARD CA 94544

JOB: 12062

RCRAGN

SEARCH ID: 9 **DIST/DIR:** 0.13 SE **ELEVATION:** 60 **MAP ID:** 6

NAME:	WILMAS COLLISION REPAIR	**REV:**	1/10/12
ADDRESS:	25571 DOLLAR ST	**ID1:**	CAD982462137
	HAYWARD CA 94544	**ID2:**	
	ALAMEDA	**STATUS:**	SGN
CONTACT:		**PHONE:**	
SOURCE:	EPA		

- AUTOMOTIVE BODY, PAINT, AND INTERIOR REPAIR AND MAINTENANCE

ENFORCEMENT INFORMATION:

Environmental FirstSearch
Site Detail Report

Target Property: 671 BERRY AVE
HAYWARD CA 94544

JOB: 12062

UST

SEARCH ID: 18 **DIST/DIR:** 0.13 SE **ELEVATION:** 60 **MAP ID:** 6

NAME: WILMAS COLLISION REPAIR
ADDRESS: 25571 DOLLAR
HAYWARD CA 94544
ALAMEDA
CONTACT:
SOURCE:

REV: 01/01/94
ID1: TISID-STATE959
ID2:
STATUS: INACTIVE
PHONE:

UST HISTORICAL DATA
This site was listed in the FIDS Zip Code List as a UST site. The Office of Hazardous Data Management produced the FIDS list. The FIDS list is an index of names & locations of sites recorded in various California State environmental agency databases. It is sorted by zip code and as an index, details regarding the sites were never included.
The UST information included in FIDS as provided by the Office of Hazardous Data Management was originally collected from the SWEEPS database. The SWEEPS database recorded Underground Storage Tanks and was maintained by the State Water Resources Control Board (SWRCB). That agency no longer maintains the SWEEPS database and last updated it in 1994. The last release of that 1994 database was in 1997.
Oversight of Underground Storage Tanks within California is now conducted by Certified Unified Program Agencies referred to as CUPA s. There are approximately 102 CUPA s and Local Oversight Programs (LOP s) in the State of California. Most are city or county government agencies. As of 1998, all sites or facilities with underground storage tanks were required by Federal mandate to obtain certification by designated UST oversight agencies (in this case, CUPA s) that the UST/s at their location were upgraded or removed in adherence with the 1998 RCRA standards.
Information from the FIDS/SWEEPS lists were included in this report search to help identify where underground storage tanks may have existed that were not recorded in CUPA databases or lists collected by us. This may occur if a tank was removed prior to development of recent CUPA UST lists or never registered with a CUPA.

Environmental FirstSearch
Site Detail Report

Target Property: 671 BERRY AVE
HAYWARD CA 94544

JOB: 12062

LUST

SEARCH ID: 28 **DIST/DIR:** 0.13 NE **ELEVATION:** 66 **MAP ID:** 7

NAME: MENEZE PROPERTY
ADDRESS: 25336 MISSION BLVD
HAYWARD CA 94544
ALAMEDA
CONTACT:
SOURCE: CA SWRCB

REV: 01/10/12
ID1: T0600101717
ID2:
STATUS: COMPLETED - CASE CLOSED
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE
Please note that some data previously provided by the State Water Resources Control Board in the LUSTIS database is not currently being provided by the agency in the most recent edition. Incidents that occurred after the year 2000 may not have much information. Field headers with blank information following after should be interpreted as unreported by the agency.

LEAD AGENCY: HAYWARD, CITY OF
REGIONAL BOARD CASE NUMBER: 01-1851
LOCAL AGENCY: HAYWARD, CITY OF
LOCAL CASE NUMBER: 01-1851

CASE TYPE: LUST Cleanup Site
POTENTIAL CONTAMINANTS OF CONCERN: Stoddard solvent / Mineral Spriits / Distillates
POTENTIAL MEDIA AFFECTED: Other Groundwater (uses other than drinking water)
STATUS: Completed - Case Closed
STATUS DATE: 1998-05-11 00:00:00
SITE HISTORY (blank if not reported):

ACTION TYPE (blank if not reported): ENFORCEMENT
DATE (blank if not reported): 1998-05-11 00:00:00
ACTION (blank if not reported): Closure/No Further Action Letter - #2198.17

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Stopped

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Reported

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Discovery

Environmental FirstSearch
Site Detail Report

Target Property: 671 BERRY AVE
HAYWARD CA 94544

JOB: 12062

RCRAGN

SEARCH ID: 7 **DIST/DIR:** 0.15 NE **ELEVATION:** 66 **MAP ID:** 8

NAME:	SHANKLINS BODY SHOP	**REV:**	1/10/12
ADDRESS:	25486 MISSION BLVD	**ID1:**	CAD982004830
	HAYWARD CA 94544	**ID2:**	
	ALAMEDA	**STATUS:**	SGN
CONTACT:		**PHONE:**	
SOURCE:	EPA		

SITE INFORMATION

OWNER NAME:GIL HOHN
OWNER TYPE:P-PRIVATE
OPERATOR:NOT REQUIRED
OPERATOR_TYPE:P-PRIVATE
MAILING ADDRESS:25486 MISSION BLVD
HAYWARD, CA 94544

UNIVERSE INFORMATION:

RECEIVED DATE:09/01/1996

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:N - NO
SUBJCA TSD 3004:N - NO
SUBJCA NON TSD:N - NO
SIGNIFICANT NON-COMPLIANCE(SNC):N - NO
BEGINNING OF THE YEAR SNC:
PERMIT WORKLOAD:-----
CLOSURE WORKLOAD:-----
POST CLOSURE WORKLOAD:-----
PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:-----
CORRECTIVE ACTION WORKLOAD:N - NO
GENERATOR STATUS:SQG - SMALL QUANTITY GENERATOR: GENERATES 100 - 1000 KG/MONTH OF HAZARDOUS WASTE

INSTITUTIONAL CONTROL:N-NOENGINEERING CONTROL:N
HUMAN EXPOSURE:N-NOGW CONTROLS:N- NO
LAND TYPE:SHORT TERM GEN:N
TRANS FACILITY:NREC WASTE FROM OFF SITE:N

IMPORTER ACTIVITY:N - NOMIXED WASTE GEN:N - NO
TRANS ACTIVITY:N - NOTSD ACTIVITY:N - NO
RECYCLER ACTIVITY:N - NOONSITE BURNER EXEMPT:N - NO
FURNACE EXEMPTION:N - NOUNDER INJECT ACTIVITY:N - NO
REC WASTE FROM OFF SITE:N - NOUNIV WASTE DEST FAC:N
USED OIL TRANS:N - NOUSED OIL PROCESSOR:N - NO
USED OIL REFINER:N - NOUSED OIL FUEL BURNER:N - NO
UO FUEL MARKETER TO BURNER:NUSED OIL SPEC MARKETER:N - NO

NAIC INFORMATION

ENFORCEMENT INFORMATION:

Target Property: 671 BERRY AVE
HAYWARD CA 94544

JOB: 12062

RCRAGN

SEARCH ID: 3 **DIST/DIR:** 0.18 NE **ELEVATION:** 76 **MAP ID:** 9

NAME:	HAYWARD BODY SHOP	**REV:**	1/10/12
ADDRESS:	25087 MISSION BLVD	**ID1:**	CAD981416233
	HAYWARD CA 94544	**ID2:**	
	ALAMEDA	**STATUS:**	SGN
CONTACT:		**PHONE:**	
SOURCE:	EPA		

SITE INFORMATION

CONTACT INFORMATION: ENVIRONMENTAL MANAGER
25087 MISSION BLVD
HAYWARD CA 94544

PHONE: 4155386700

OWNER NAME:RICHARD OGLE
OWNER TYPE:P-PRIVATE
OPERATOR:NOT REQUIRED
OPERATOR_TYPE:P-PRIVATE
MAILING ADDRESS: 25087 MISSION BLVD
HAYWARD, CA 94544

UNIVERSE INFORMATION:

RECEIVED DATE:06/03/1986

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:N - NO
SUBJCA TSD 3004:N - NO
SUBJCA NON TSD:N - NO
SIGNIFICANT NON-COMPLIANCE(SNC):N - NO
BEGINNING OF THE YEAR SNC:
PERMIT WORKLOAD:-----
CLOSURE WORKLOAD:-----
POST CLOSURE WORKLOAD:-----
PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:-----
CORRECTIVE ACTION WORKLOAD:N - NO
GENERATOR STATUS:SQG - SMALL QUANTITY GENERATOR: GENERATES 100 - 1000 KG/MONTH OF HAZARDOUS WASTE

INSTITUTIONAL CONTROL:N-NOENGINEERING CONTROL:N
HUMAN EXPOSURE:N-NOGW CONTROLS:N- NO
LAND TYPE:O-OTHERSHORT TERM GEN:N
TRANS FACILITY:NREC WASTE FROM OFF SITE:N

IMPORTER ACTIVITY:N - NOMIXED WASTE GEN:N - NO
TRANS ACTIVITY:N - NOTSD ACTIVITY:N - NO
RECYCLER ACTIVITY:N - NOONSITE BURNER EXEMPT:N - NO
FURNACE EXEMPTION:N - NOUNDER INJECT ACTIVITY:N - NO
REC WASTE FROM OFF SITE:N - NOUNIV WASTE DEST FAC:N
USED OIL TRANS:N - NOUSED OIL PROCESSOR:N - NO
USED OIL REFINER:N - NOUSED OIL FUEL BURNER:N - NO
UO FUEL MARKETER TO BURNER:NUSED OIL SPEC MARKETER:N - NO

NAIC INFORMATION

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: 671 BERRY AVE
HAYWARD CA 94544

JOB: 12062

RCRAGN

SEARCH ID: 3 **DIST/DIR:** 0.18 NE **ELEVATION:** 76 **MAP ID:** 9

NAME:	HAYWARD BODY SHOP	**REV:**	1/10/12
ADDRESS:	25087 MISSION BLVD	**ID1:**	CAD981416233
	HAYWARD CA 94544	**ID2:**	
	ALAMEDA	**STATUS:**	SGN
CONTACT:		**PHONE:**	
SOURCE:	EPA		

- AUTOMOTIVE BODY, PAINT, AND INTERIOR REPAIR AND MAINTENANCE

ENFORCEMENT INFORMATION:

Environmental FirstSearch
Site Detail Report

Target Property: 671 BERRY AVE
HAYWARD CA 94544

JOB: 12062

RCRAGN

SEARCH ID: 4 **DIST/DIR:** 0.19 SE **ELEVATION:** 60 **MAP ID:** 10

NAME:	HAYWARD DODGE CHRYSLER PLYMOUTH	**REV:**	1/10/12
ADDRESS:	25601 MISSION BLVD	**ID1:**	CAD981443302
	HAYWARD CA 94544	**ID2:**	
	ALAMEDA	**STATUS:**	SGN
CONTACT:		**PHONE:**	
SOURCE:	EPA		

SITE INFORMATION

OWNER NAME:
OWNER TYPE:
OPERATOR:NOT REQUIRED
OPERATOR_TYPE:P-PRIVATE
MAILING ADDRESS: 25601 MISSION BLVD
HAYWARD, CA 94544

UNIVERSE INFORMATION:

RECEIVED DATE:09/01/1996

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:N - NO
SUBJCA TSD 3004:N - NO
SUBJCA NON TSD:N - NO
SIGNIFICANT NON-COMPLIANCE(SNC):N - NO
BEGINNING OF THE YEAR SNC:
PERMIT WORKLOAD:-----
CLOSURE WORKLOAD:-----
POST CLOSURE WORKLOAD:-----
PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:-----
CORRECTIVE ACTION WORKLOAD:N - NO
GENERATOR STATUS:SQG - SMALL QUANTITY GENERATOR: GENERATES 100 - 1000 KG/MONTH OF HAZARDOUS WASTE

INSTITUTIONAL CONTROL:N-NOENGINEERING CONTROL:N
HUMAN EXPOSURE:N-NOGW CONTROLS:N- NO
LAND TYPE:P-PRIVATESHORT TERM GEN:N
TRANS FACILITY:NREC WASTE FROM OFF SITE:N

IMPORTER ACTIVITY:N - NOMIXED WASTE GEN:N - NO
TRANS ACTIVITY:N - NOTSD ACTIVITY:N - NO
RECYCLER ACTIVITY:N - NOONSITE BURNER EXEMPT:N - NO
FURNACE EXEMPTION:N - NOUNDER INJECT ACTIVITY:N - NO
REC WASTE FROM OFF SITE:N - NOUNIV WASTE DEST FAC:N
USED OIL TRANS:N - NOUSED OIL PROCESSOR:N - NO
USED OIL REFINER:N - NOUSED OIL FUEL BURNER:N - NO
UO FUEL MARKETER TO BURNER:NUSED OIL SPEC MARKETER:N - NO

NAIC INFORMATION

44111 - NEW CAR DEALERS

ENFORCEMENT INFORMATION:

Environmental FirstSearch
Site Detail Report

Target Property: 671 BERRY AVE
HAYWARD CA 94544

JOB: 12062

UST

SEARCH ID: 11 **DIST/DIR:** 0.19 SE **ELEVATION:** 60 **MAP ID:** 10

NAME: HAYWARD DATSUN CHRYSLER PLY.
ADDRESS: 25601 MISSION BLVD
HAYWARD CA 94560
ALAMEDA
CONTACT:
SOURCE:

REV: 01/01/94
ID1: TISID-STATE12233
ID2:
STATUS: ACTIVE
PHONE:

UST HISTORICAL DATA
This site was listed in the FIDS Zip Code List as a UST site. The Office of Hazardous Data Management produced the FIDS list. The FIDS list is an index of names & locations of sites recorded in various California State environmental agency databases. It is sorted by zip code and as an index, details regarding the sites were never included.
The UST information included in FIDS as provided by the Office of Hazardous Data Management was originally collected from the SWEEPS database. The SWEEPS database recorded Underground Storage Tanks and was maintained by the State Water Resources Control Board (SWRCB). That agency no longer maintains the SWEEPS database and last updated it in 1994. The last release of that 1994 database was in 1997.
Oversight of Underground Storage Tanks within California is now conducted by Certified Unified Program Agencies referred to as CUPA s. There are approximately 102 CUPA s and Local Oversight Programs (LOP s) in the State of California. Most are city or county government agencies. As of 1998, all sites or facilities with underground storage tanks were required by Federal mandate to obtain certification by designated UST oversight agencies (in this case, CUPA s) that the UST/s at their location were upgraded or removed in adherence with the 1998 RCRA standards.
Information from the FIDS/SWEEPS lists were included in this report search to help identify where underground storage tanks may have existed that were not recorded in CUPA databases or lists collected by us. This may occur if a tank was removed prior to development of recent CUPA UST lists or never registered with a CUPA.

Environmental FirstSearch
Site Detail Report

Target Property: 671 BERRY AVE
HAYWARD CA 94544

JOB: 12062

LUST

SEARCH ID: 25 **DIST/DIR:** 0.19 SE **ELEVATION:** 60 **MAP ID:** 10

NAME:	HAYWARD DODGE INC	**REV:**	01/10/12
ADDRESS:	25601 MISSION BLVD	**ID1:**	T0600101683
	HAYWARD CA 94544	**ID2:**	
	ALAMEDA	**STATUS:**	OPEN - SITE ASSESSMENT
CONTACT:		**PHONE:**	
SOURCE:	CA SWRCB		

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE
Please note that some data previously provided by the State Water Resources Control Board in the LUSTIS database is not currently being provided by the agency in the most recent edition. Incidents that occurred after the year 2000 may not have much information. Field headers with blank information following after should be interpreted as unreported by the agency.

LEAD AGENCY: HAYWARD, CITY OF
REGIONAL BOARD CASE NUMBER: 01-1817
LOCAL AGENCY: HAYWARD, CITY OF
LOCAL CASE NUMBER: 01-1817

CASE TYPE: LUST Cleanup Site
POTENTIAL CONTAMINANTS OF CONCERN: Waste Oil / Motor / Hydraulic / Lubricating
POTENTIAL MEDIA AFFECTED: Soil
STATUS: Open - Site Assessment
STATUS DATE: 2010-12-21 00:00:00
SITE HISTORY (blank if not reported):

ACTION TYPE (blank if not reported): ENFORCEMENT
DATE (blank if not reported): 2008-07-18 00:00:00
ACTION (blank if not reported): Notice to Comply

ACTION TYPE (blank if not reported): ENFORCEMENT
DATE (blank if not reported): 2011-03-25 00:00:00
ACTION (blank if not reported): File review

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Discovery

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Stopped

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Reported

Environmental FirstSearch
Site Detail Report

Target Property: 671 BERRY AVE
HAYWARD CA 94544

JOB: 12062

UST

SEARCH ID: 13 **DIST/DIR:** 0.22 NW **ELEVATION:** 80 **MAP ID:** 11

NAME:	NELSON T LEWIS CONSTRUCTION CO, INC	**REV:**	06/28/2000
ADDRESS:	25001 O NEIL AVE	**ID1:**	HAYWARDCITY00387_01
	HAYWARD CA	**ID2:**	
	ALAMEDA	**STATUS:**	
CONTACT:		**PHONE:**	
SOURCE:			

HAYWARD CITY TANKS LIST INFORMATION:
According to the City of Hayward Fire Dept. the following information is current as of 05/27/03

Number of Motor Vehicle Fuel Tanks: 1
Number of Non Motor Vehicle Fuel Tanks: 0

Environmental FirstSearch
Site Detail Report

Target Property: 671 BERRY AVE
HAYWARD CA 94544

JOB: 12062

UST

SEARCH ID: 14 **DIST/DIR:** 0.22 NW **ELEVATION:** 80 **MAP ID:** 11

NAME: NELSON T. LEWIS CONSTRUCTIO CO
ADDRESS: 25001 O NEIL
HAYWARD CA 94544
ALAMEDA
CONTACT:
SOURCE:

REV: 01/01/94
ID1: TISID-STATE12318
ID2:
STATUS: ACTIVE
PHONE:

UST HISTORICAL DATA
This site was listed in the FIDS Zip Code List as a UST site. The Office of Hazardous Data Management produced the FIDS list. The FIDS list is an index of names & locations of sites recorded in various California State environmental agency databases. It is sorted by zip code and as an index, details regarding the sites were never included.
The UST information included in FIDS as provided by the Office of Hazardous Data Management was originally collected from the SWEEPS database. The SWEEPS database recorded Underground Storage Tanks and was maintained by the State Water Resources Control Board (SWRCB). That agency no longer maintains the SWEEPS database and last updated it in 1994. The last release of that 1994 database was in 1997.
Oversight of Underground Storage Tanks within California is now conducted by Certified Unified Program Agencies referred to as CUPA s. There are approximately 102 CUPA s and Local Oversight Programs (LOP s) in the State of California. Most are city or county government agencies. As of 1998, all sites or facilities with underground storage tanks were required by Federal mandate to obtain certification by designated UST oversight agencies (in this case, CUPA s) that the UST/s at their location were upgraded or removed in adherence with the 1998 RCRA standards.
Information from the FIDS/SWEEPS lists were included in this report search to help identify where underground storage tanks may have existed that were not recorded in CUPA databases or lists collected by us. This may occur if a tank was removed prior to development of recent CUPA UST lists or never registered with a CUPA.

Environmental FirstSearch
Site Detail Report

Target Property: 671 BERRY AVE
HAYWARD CA 94544

JOB: 12062

UST

SEARCH ID: 15 **DIST/DIR:** 0.23 NE **ELEVATION:** 82 **MAP ID:** 12

NAME: PHIL-CO MOTORS
ADDRESS: 25030 MISSION
HAYWARD CA
ALAMEDA
CONTACT:
SOURCE:

REV: 01/01/94
ID1: TISID-STATE1052
ID2:
STATUS: INACTIVE
PHONE:

UST HISTORICAL DATA
This site was listed in the FIDS Zip Code List as a UST site. The Office of Hazardous Data Management produced the FIDS list. The FIDS list is an index of names & locations of sites recorded in various California State environmental agency databases. It is sorted by zip code and as an index, details regarding the sites were never included.
The UST information included in FIDS as provided by the Office of Hazardous Data Management was originally collected from the SWEEPS database. The SWEEPS database recorded Underground Storage Tanks and was maintained by the State Water Resources Control Board (SWRCB). That agency no longer maintains the SWEEPS database and last updated it in 1994. The last release of that 1994 database was in 1997.
Oversight of Underground Storage Tanks within California is now conducted by Certified Unified Program Agencies referred to as CUPA s. There are approximately 102 CUPA s and Local Oversight Programs (LOP s) in the State of California. Most are city or county government agencies. As of 1998, all sites or facilities with underground storage tanks were required by Federal mandate to obtain certification by designated UST oversight agencies (in this case, CUPA s) that the UST/s at their location were upgraded or removed in adherence with the 1998 RCRA standards.
Information from the FIDS/SWEEPS lists were included in this report search to help identify where underground storage tanks may have existed that were not recorded in CUPA databases or lists collected by us. This may occur if a tank was removed prior to development of recent CUPA UST lists or never registered with a CUPA.

Environmental FirstSearch
Site Detail Report

Target Property: 671 BERRY AVE
HAYWARD CA 94544

JOB: 12062

LUST

SEARCH ID: 20 **DIST/DIR:** 0.23 NE **ELEVATION:** 82 **MAP ID:** 12

NAME: CALTRANS PROPERTY
ADDRESS: 25030 MISSION BLVD
HAYWARD CA 94544
ALAMEDA
CONTACT:
SOURCE: CA SWRCB

REV: 01/10/12
ID1: T0600100241
ID2:
STATUS: OPEN - VERIFICATION MONITORING
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE
Please note that some data previously provided by the State Water Resources Control Board in the LUSTIS database is not currently being provided by the agency in the most recent edition. Incidents that occurred after the year 2000 may not have much information. Field headers with blank information following after should be interpreted as unreported by the agency.

LEAD AGENCY: HAYWARD, CITY OF
REGIONAL BOARD CASE NUMBER: 01-0257
LOCAL AGENCY: HAYWARD, CITY OF
LOCAL CASE NUMBER: 01-0257

CASE TYPE: LUST Cleanup Site
POTENTIAL CONTAMINANTS OF CONCERN: Gasoline
POTENTIAL MEDIA AFFECTED: Other Groundwater (uses other than drinking water)
STATUS: Open - Verification Monitoring
STATUS DATE: 2001-12-31 00:00:00
SITE HISTORY (blank if not reported):

ACTION TYPE (blank if not reported): ENFORCEMENT
DATE (blank if not reported): 2010-12-02 00:00:00
ACTION (blank if not reported): File Review - Closure

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Reported

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Discovery

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Stopped

ACTION TYPE (blank if not reported): RESPONSE
DATE (blank if not reported): 2010-06-23 00:00:00
ACTION (blank if not reported): Request for Closure

ACTION TYPE (blank if not reported): RESPONSE
DATE (blank if not reported): 2011-12-15 00:00:00
ACTION (blank if not reported): Well Destruction Report

ACTION TYPE (blank if not reported): RESPONSE
DATE (blank if not reported): 2002-07-02 00:00:00
ACTION (blank if not reported): Soil and Water Investigation Report

Environmental FirstSearch
Site Detail Report

Target Property: 671 BERRY AVE
HAYWARD CA 94544

JOB: 12062

CERCLIS

SEARCH ID: 1 **DIST/DIR:** 0.24 NE **ELEVATION:** 73 **MAP ID:** 13

NAME:	ALAMEDA COUNTY MERCURY MYSTERY	**REV:**	2/27/12
ADDRESS:	25514 DEL MAR AVE	**ID1:**	CAN000908818
	HAYWARD CA	**ID2:**	0908818
	ALAMEDA	**STATUS:**	NOT PROPOSED
CONTACT:	MICHELLE ROGOW	**PHONE:**	4159723082
SOURCE:	EPA		

ACTION/QUALITY AGENCY/RPS START/RAA END

removal assessmentEPA Fund-Financed3/26/20105/13/2010

potentially responsible party emergency removalResponsible Party3/26/20105/12/2010
Cleaned upPrimaryVoluntary Cleanup Start and Complete

DESCRIPTION:

Environmental FirstSearch
Site Detail Report

Target Property: 671 BERRY AVE
HAYWARD CA 94544

JOB: 12062

LUST

SEARCH ID: 27 **DIST/DIR:** 0.24 SE **ELEVATION:** 60 **MAP ID:** 14

NAME:	MAURY COX VANS	**REV:**	01/10/12
ADDRESS:	25700 MISSION BLVD	**ID1:**	T0600100874
	HAYWARD CA 94544	**ID2:**	
	ALAMEDA	**STATUS:**	COMPLETED - CASE CLOSED
CONTACT:		**PHONE:**	
SOURCE:	CA SWRCB		

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE
Please note that some data previously provided by the State Water Resources Control Board in the LUSTIS database is not currently being provided by the agency in the most recent edition. Incidents that occurred after the year 2000 may not have much information. Field headers with blank information following after should be interpreted as unreported by the agency.

LEAD AGENCY: HAYWARD, CITY OF
REGIONAL BOARD CASE NUMBER: 01-0949
LOCAL AGENCY: HAYWARD, CITY OF
LOCAL CASE NUMBER: 01-0949

CASE TYPE: LUST Cleanup Site
POTENTIAL CONTAMINANTS OF CONCERN: Gasoline
POTENTIAL MEDIA AFFECTED: Other Groundwater (uses other than drinking water), Soil
STATUS: Completed - Case Closed
STATUS DATE: 2008-06-16 00:00:00
SITE HISTORY (blank if not reported):

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Reported

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Stopped

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Discovery

Environmental FirstSearch
Site Detail Report

Target Property: 671 BERRY AVE
HAYWARD CA 94544

JOB: 12062

RCRAGN

SEARCH ID: 2 **DIST/DIR:** 0.25 NW **ELEVATION:** 82 **MAP ID:** 15

NAME:	CORLEY S AUTO REPAIR	**REV:**	1/10/12
ADDRESS:	24915 ONEIL AVE	**ID1:**	CAD980891469
	HAYWARD CA 94544	**ID2:**	
	ALAMEDA	**STATUS:**	SGN
CONTACT:		**PHONE:**	
SOURCE:	EPA		

SITE INFORMATION

OWNER NAME:NOT REQUIRED
OWNER TYPE:P-PRIVATE
OPERATOR:NOT REQUIRED
OPERATOR_TYPE:P-PRIVATE
MAILING ADDRESS:24915 O NEIL AVE
HAYWARD, CA 94544

UNIVERSE INFORMATION:

RECEIVED DATE:09/01/1996

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:N - NO
SUBJCA TSD 3004:N - NO
SUBJCA NON TSD:N - NO
SIGNIFICANT NON-COMPLIANCE(SNC):N - NO
BEGINNING OF THE YEAR SNC:
PERMIT WORKLOAD:-----
CLOSURE WORKLOAD:-----
POST CLOSURE WORKLOAD:-----
PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:-----
CORRECTIVE ACTION WORKLOAD:N - NO
GENERATOR STATUS:SQG - SMALL QUANTITY GENERATOR: GENERATES 100 - 1000 KG/MONTH OF HAZARDOUS WASTE

INSTITUTIONAL CONTROL:N-NOENGINEERING CONTROL:N
HUMAN EXPOSURE:N-NOGW CONTROLS:N- NO
LAND TYPE:SHORT TERM GEN:N
TRANS FACILITY:NREC WASTE FROM OFF SITE:N

IMPORTER ACTIVITY:N - NOMIXED WASTE GEN:N - NO
TRANS ACTIVITY:N - NOTSD ACTIVITY:N - NO
RECYCLER ACTIVITY:N - NOONSITE BURNER EXEMPT:N - NO
FURNACE EXEMPTION:N - NOUNDER INJECT ACTIVITY:N - NO
REC WASTE FROM OFF SITE:N - NOUNIV WASTE DEST FAC:N
USED OIL TRANS:N - NOUSED OIL PROCESSOR:N - NO
USED OIL REFINER:N - NOUSED OIL FUEL BURNER:N - NO
UO FUEL MARKETER TO BURNER:NUSED OIL SPEC MARKETER:N - NO

NAIC INFORMATION

ENFORCEMENT INFORMATION:

Environmental FirstSearch
Site Detail Report

Target Property: 671 BERRY AVE
HAYWARD CA 94544

JOB: 12062

LUST

SEARCH ID: 21 **DIST/DIR:** 0.34 NW **ELEVATION:** 95 **MAP ID:** 16

NAME: CHEVRON
ADDRESS: 24874 MISSION BLVD
HAYWARD CA 94544
ALAMEDA
CONTACT:
SOURCE: CA SWRCB

REV: 01/10/12
ID1: T0600100320
ID2:
STATUS: COMPLETED - CASE CLOSED
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE
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LEAD AGENCY: HAYWARD, CITY OF
REGIONAL BOARD CASE NUMBER: 01-0348
LOCAL AGENCY: HAYWARD, CITY OF
LOCAL CASE NUMBER: 01-0348

CASE TYPE: LUST Cleanup Site
POTENTIAL CONTAMINANTS OF CONCERN: Gasoline
POTENTIAL MEDIA AFFECTED: Other Groundwater (uses other than drinking water)
STATUS: Completed - Case Closed
STATUS DATE: 1993-03-30 00:00:00
SITE HISTORY (blank if not reported):

ACTION TYPE (blank if not reported): ENFORCEMENT
DATE (blank if not reported): 1993-06-30 00:00:00
ACTION (blank if not reported): Closure/No Further Action Letter

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Reported

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Stopped

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Discovery

Environmental FirstSearch
Site Detail Report

Target Property: 671 BERRY AVE
HAYWARD CA 94544

JOB: 12062

LUST

SEARCH ID: 26 **DIST/DIR:** 0.38 NW **ELEVATION:** 89 **MAP ID:** 17

NAME:	HAYWARD TOYOTA PROPERTY	**REV:**	01/10/12
ADDRESS:	24773 MISSION BLVD	**ID1:**	T0600100685
	HAYWARD CA 94544	**ID2:**	
	ALAMEDA	**STATUS:**	OPEN - VERIFICATION MONITORING
CONTACT:		**PHONE:**	
SOURCE:	CA SWRCB		

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE
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LEAD AGENCY: HAYWARD, CITY OF
REGIONAL BOARD CASE NUMBER: 01-0743
LOCAL AGENCY: HAYWARD, CITY OF
LOCAL CASE NUMBER: 01-0743

CASE TYPE: LUST Cleanup Site
POTENTIAL CONTAMINANTS OF CONCERN: Gasoline
POTENTIAL MEDIA AFFECTED: Other Groundwater (uses other than drinking water)
STATUS: Open - Verification Monitoring
STATUS DATE: 2010-11-29 00:00:00
SITE HISTORY (blank if not reported):

ACTION TYPE (blank if not reported): ENFORCEMENT
DATE (blank if not reported): 2008-08-06 00:00:00
ACTION (blank if not reported): Staff Letter

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Reported

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Stopped

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Discovery

Environmental FirstSearch
Site Detail Report

Target Property: 671 BERRY AVE
HAYWARD CA 94544

JOB: 12062

LUST

SEARCH ID: 23 **DIST/DIR:** 0.41 SE **ELEVATION:** 66 **MAP ID:** 18

NAME:	FORMER HAYWARD NISSAN PROPERTY	**REV:**	01/10/12
ADDRESS:	25995 MISSION BLVD	**ID1:**	T0600101460
	HAYWARD CA 94544	**ID2:**	
	ALAMEDA	**STATUS:**	OPEN - VERIFICATION MONITORING
CONTACT:		**PHONE:**	
SOURCE:	CA SWRCB		

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE
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LEAD AGENCY: HAYWARD, CITY OF
REGIONAL BOARD CASE NUMBER: 01-1585
LOCAL AGENCY: HAYWARD, CITY OF
LOCAL CASE NUMBER: 01-1585

CASE TYPE: LUST Cleanup Site
POTENTIAL CONTAMINANTS OF CONCERN: Gasoline
POTENTIAL MEDIA AFFECTED: Other Groundwater (uses other than drinking water)
STATUS: Open - Verification Monitoring
STATUS DATE: 2007-02-19 00:00:00
SITE HISTORY (blank if not reported):

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Reported

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Stopped

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Discovery

ACTION TYPE (blank if not reported): REMEDIATION
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Other (Refer to Description)

ACTION TYPE (blank if not reported): REMEDIATION
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Other (Refer to Description)

ACTION TYPE (blank if not reported): REMEDIATION
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Monitored Natural Attenuation

ACTION TYPE (blank if not reported): REMEDIATION
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Other (Refer to Description)

ACTION TYPE (blank if not reported): REMEDIATION
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Monitored Natural Attenuation

Environmental FirstSearch
Site Detail Report

Target Property: 671 BERRY AVE
HAYWARD CA 94544

JOB: 12062

LUST

SEARCH ID: 31 **DIST/DIR:** 0.43 SW **ELEVATION:** 52 **MAP ID:** 19

NAME: PAHLMEYER PROPERTY
ADDRESS: 214 HARDER RD
HAYWARD CA 94544
ALAMEDA
CONTACT:
SOURCE: CA SWRCB

REV: 06/30/2001
ID1: 01-1881
ID2:
STATUS: LEAK BEING CONFIRMED
PHONE:

CASE TYPE: UNDEFINED
SUBSTANCE LEAKED: GASOLINE
SUBSTANCE QUANTITY:
LEAD AGENCY: LOCAL AGENCY
REGIONAL BOARD: SAN FRANCISCO BAY REGION
STATUS: LEAK BEING CONFIRMED
ABATEMENT METHOD: NO ACTION TAKEN- NO ACTION HAS YET BEEN TAKEN AT THE SITE
REVIEW DATE: 1/25/96
DATE OF LEAK CONFIRMATION: 1/25/96
DATE PRELIMINARY SITE ASSESSMENT PLAN WAS SUBMITTED:
DATE PRELIMINARY SITE ASSESSMENT PLAN BEGAN:
DATE POLLUTION CHARACTERIZATION PLAN BEGAN:

DATE REMEDIATION PLAN WAS SUBMITTED:

DATE REMEDIAL ACTION UNDERWAY:
DATE POST REMEDIAL ACTION MONITORING BEGAN:
DATE CLOSURE LETTER ISSUED (SITE CLOSED):
REPORT DATE: 4/4/94

Environmental FirstSearch
Site Detail Report

Target Property: 671 BERRY AVE
HAYWARD CA 94544

JOB: 12062

LUST

SEARCH ID: 30 **DIST/DIR:** 0.45 SE **ELEVATION:** 77 **MAP ID:** 20

NAME: OIL CHANGER NO. 302
ADDRESS: 26070 MISSION BLVD
HAYWARD CA 94544
ALAMEDA
CONTACT:
SOURCE: CA SWRCB

REV: 01/10/12
ID1: T0600101003
ID2:
STATUS: COMPLETED - CASE CLOSED
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE
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LEAD AGENCY: HAYWARD, CITY OF
REGIONAL BOARD CASE NUMBER: 01-1087
LOCAL AGENCY: HAYWARD, CITY OF
LOCAL CASE NUMBER: 01-1087

CASE TYPE: LUST Cleanup Site
POTENTIAL CONTAMINANTS OF CONCERN: Gasoline
POTENTIAL MEDIA AFFECTED: Other Groundwater (uses other than drinking water)
STATUS: Completed - Case Closed
STATUS DATE: 2008-12-17 00:00:00
SITE HISTORY (blank if not reported):

ACTION TYPE (blank if not reported): ENFORCEMENT
DATE (blank if not reported): 2008-12-12 00:00:00
ACTION (blank if not reported): File review

ACTION TYPE (blank if not reported): ENFORCEMENT
DATE (blank if not reported): 2008-11-10 00:00:00
ACTION (blank if not reported): Referral to Regional Board

ACTION TYPE (blank if not reported): ENFORCEMENT
DATE (blank if not reported): 2008-12-17 00:00:00
ACTION (blank if not reported): Closure/No Further Action Letter

ACTION TYPE (blank if not reported): ENFORCEMENT
DATE (blank if not reported): 2008-06-24 00:00:00
ACTION (blank if not reported): File review

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Discovery

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Stopped

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Reported

Environmental FirstSearch
Site Detail Report

Target Property: 671 BERRY AVE
HAYWARD CA 94544

JOB: 12062

LUST

SEARCH ID: 33 **DIST/DIR:** 0.45 SE **ELEVATION:** 72 **MAP ID:** 21

NAME:	UNOCAL	**REV:**	01/10/12
ADDRESS:	26091 MISSION BLVD	**ID1:**	T0600101799
	HAYWARD CA 94544	**ID2:**	
	ALAMEDA	**STATUS:**	COMPLETED - CASE CLOSED
CONTACT:		**PHONE:**	
SOURCE:	CA SWRCB		

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE
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LEAD AGENCY: HAYWARD, CITY OF
REGIONAL BOARD CASE NUMBER: 01-1946
LOCAL AGENCY: HAYWARD, CITY OF
LOCAL CASE NUMBER: 01-1946

CASE TYPE: LUST Cleanup Site
POTENTIAL CONTAMINANTS OF CONCERN: Gasoline
POTENTIAL MEDIA AFFECTED: Other Groundwater (uses other than drinking water)
STATUS: Completed - Case Closed
STATUS DATE: 2000-02-18 00:00:00
SITE HISTORY (blank if not reported):

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Discovery

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Stopped

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Reported

Environmental FirstSearch
Site Detail Report

Target Property: 671 BERRY AVE
HAYWARD CA 94544

JOB: 12062

LUST

SEARCH ID: 29 **DIST/DIR:** 0.46 NW **ELEVATION:** 100 **MAP ID:** 22

NAME:	MISSION LINCOLN MERCURY INC	**REV:**	01/10/12
ADDRESS:	24644 MISSION BLVD	**ID1:**	T0600101718
	HAYWARD CA 94544	**ID2:**	
	ALAMEDA	**STATUS:**	COMPLETED - CASE CLOSED
CONTACT:		**PHONE:**	
SOURCE:	CA SWRCB		

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE
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LEAD AGENCY: HAYWARD, CITY OF
REGIONAL BOARD CASE NUMBER: 01-1852
LOCAL AGENCY: HAYWARD, CITY OF
LOCAL CASE NUMBER: 01-1852

CASE TYPE: LUST Cleanup Site
POTENTIAL CONTAMINANTS OF CONCERN: Gasoline
POTENTIAL MEDIA AFFECTED: Soil
STATUS: Completed - Case Closed
STATUS DATE: 1996-06-10 00:00:00
SITE HISTORY (blank if not reported):

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Reported

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Discovery

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Stopped

Environmental FirstSearch
Site Detail Report

Target Property: 671 BERRY AVE
HAYWARD CA 94544

JOB: 12062

LUST

SEARCH ID: 19 **DIST/DIR:** 0.49 SW **ELEVATION:** 50 **MAP ID:** 23

NAME: A & G GAS
ADDRESS: 25757 SOTO RD
HAYWARD CA 94544
ALAMEDA
CONTACT:
SOURCE: CA SWRCB

REV: 01/10/12
ID1: T0600191154
ID2:
STATUS: COMPLETED - CASE CLOSED
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE
Please note that some data previously provided by the State Water Resources Control Board in the LUSTIS database is not currently being provided by the agency in the most recent edition. Incidents that occurred after the year 2000 may not have much information. Field headers with blank information following after should be interpreted as unreported by the agency.

LEAD AGENCY: HAYWARD, CITY OF
REGIONAL BOARD CASE NUMBER: 01-2503
LOCAL AGENCY: HAYWARD, CITY OF
LOCAL CASE NUMBER: 01-2503

CASE TYPE: LUST Cleanup Site
POTENTIAL CONTAMINANTS OF CONCERN: Gasoline
POTENTIAL MEDIA AFFECTED: Under Investigation
STATUS: Completed - Case Closed
STATUS DATE: 2010-08-03 00:00:00
SITE HISTORY (blank if not reported):

ACTION TYPE (blank if not reported): ENFORCEMENT
DATE (blank if not reported): 2009-12-01 00:00:00
ACTION (blank if not reported): Referral to Regional Board

ACTION TYPE (blank if not reported): ENFORCEMENT
DATE (blank if not reported): 2010-08-03 00:00:00
ACTION (blank if not reported): Closure/No Further Action Letter

ACTION TYPE (blank if not reported): ENFORCEMENT
DATE (blank if not reported): 2010-07-12 00:00:00
ACTION (blank if not reported): Referral to Regional Board

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Stopped

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Reported

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Discovery

ACTION TYPE (blank if not reported): RESPONSE
DATE (blank if not reported): 2009-03-31 00:00:00
ACTION (blank if not reported): Request for Closure

Environmental FirstSearch
Site Detail Report

Target Property: 671 BERRY AVE
HAYWARD CA 94544

JOB: 12062

LUST

SEARCH ID: 24 **DIST/DIR:** 0.50 SW **ELEVATION:** 67 **MAP ID:** 24

NAME:	FUJIIS PLANT OUTLET	**REV:**	01/10/12
ADDRESS:	24949 SOTO RD	**ID1:**	T0600100619
	HAYWARD CA 94544	**ID2:**	
	ALAMEDA	**STATUS:**	COMPLETED - CASE CLOSED
CONTACT:		**PHONE:**	
SOURCE:	CA SWRCB		

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE
Please note that some data previously provided by the State Water Resources Control Board in the LUSTIS database is not currently being provided by the agency in the most recent edition. Incidents that occurred after the year 2000 may not have much information. Field headers with blank information following after should be interpreted as unreported by the agency.

LEAD AGENCY: HAYWARD, CITY OF
REGIONAL BOARD CASE NUMBER: 01-0673
LOCAL AGENCY: HAYWARD, CITY OF
LOCAL CASE NUMBER: 01-0673

CASE TYPE: LUST Cleanup Site
POTENTIAL CONTAMINANTS OF CONCERN: Gasoline
POTENTIAL MEDIA AFFECTED: Soil
STATUS: Completed - Case Closed
STATUS DATE: 1995-07-06 00:00:00
SITE HISTORY (blank if not reported):

ACTION TYPE (blank if not reported): ENFORCEMENT
DATE (blank if not reported): 1995-07-06 00:00:00
ACTION (blank if not reported): Closure/No Further Action Letter

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Stopped

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Discovery

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Reported

Environmental FirstSearch
Site Detail Report

Target Property: 671 BERRY AVE
HAYWARD CA 94544

JOB: 12062

STATE

SEARCH ID: 10 **DIST/DIR:** 0.87 SW **ELEVATION:** 68 **MAP ID:** 25

NAME: JACKSON STREET LUMBER COMPANY
ADDRESS: 73 W JACKSON ST
HAYWARD CA 94544
ALAMEDA
CONTACT:
SOURCE: CA DTSC

REV: 02/08/12
ID1: CAL01240033
ID2: EVALUATION
STATUS: NO FURTHER ACTION
PHONE:

GENERAL SITE INFORMATION
Site Type: Evaluation
Status: No Further Action
Status Date: 1994-06-27 00:00:00
NPL Site: NO
Funding:
Regulatory Agencies Involved: SMBRP
Lead Agency: SMBRP
Project Manager: Denise Tsuji
Supervisor: Denise Tsuji
Branch: Cleanup Berkeley
Acres: 6.5
Assessor s Parcel Number: 443-0050-012-00, 443-50-12
Past Uses: NONE
Potential Contaminants: NONE SPECIFIED
Confirmed Contaminants: NONE SPECIFIED
Potential Media Affected: NMA
Restricted Use: NO
Site Management Required: NONE SPECIFIED
Special Programs Associated with this Site:

OTHER SITE NAMES (blank below = not reported by agency)
JACKSON STREET LUMBER COMPANY

443-0050-012-00

443-50-12

CAD028287068

01240033

COMPLETED ACTIVITIES AND DTSC COMMENTS REGARDING THIS SITE (blank below = not reported by agency)
Area Name: PROJECT WIDE
Sub- Area Name:
Document Type: Site Screening
Completion Date: 1993-03-05 00:00:00
Comments: Completed Site Screening.

Area Name: PROJECT WIDE
Sub- Area Name:
Document Type: Site Screening
Completion Date: 2002-04-22 00:00:00
Comments: Site screening attributed contamination to an isolated incident and recommended NFA.

Environmental FirstSearch Descriptions

NPL: EPA NATIONAL PRIORITY LIST - The National Priorities List is a list of the worst hazardous waste sites that have been identified by Superfund. Sites are only put on the list after they have been scored using the Hazard Ranking System (HRS), and have been subjected to public comment. Any site on the NPL is eligible for cleanup using Superfund Trust money. A Superfund site is any land in the United States that has been contaminated by hazardous waste and identified by the Environmental Protection Agency (EPA) as a candidate for cleanup because it poses a risk to human health and/or the environment.FINAL - Currently on the Final NPLPROPOSED - Proposed for NPL

NPL DELISTED: EPA NATIONAL PRIORITY LIST Subset - Database of delisted NPL sites. The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.DELISTED - Deleted from the Final NPL

CERCLIS: EPA COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY INFORMATION SYSTEM (CERCLIS)- CERCLIS is a database of potential and confirmed hazardous waste sites at which the EPA Superfund program has some involvement. It contains sites that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL.PART OF NPL- Site is part of NPL siteDELETED - Deleted from the Final NPLFINAL - Currently on the Final NPLNOT PROPOSED - Not on the NPLNOT VALID - Not Valid Site or IncidentPROPOSED - Proposed for NPLREMOVED - Removed from Proposed NPLSCAN PLAN - Pre-proposal SiteWITHDRAWN - Withdrawn

NFRAP: EPA COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY INFORMATION SYSTEM ARCHIVED SITES - database of Archive designated CERCLA sites that, to the best of EPA's knowledge, assessment has been completed and has determined no further steps will be taken to list this site on the National Priorities List (NPL). This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.NFRAP – No Further Remedial Action PlanP - Site is part of NPL siteD - Deleted from the Final NPLF - Currently on the Final NPLN - Not on the NPLO - Not Valid Site or IncidentP - Proposed for NPLR - Removed from Proposed NPLS - Pre-proposal SiteW – Withdrawn

RCRA COR ACT: EPA RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM SITES - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.RCRAInfo facilities that have reported violations and subject to corrective actions.

RCRA TSD: EPA RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM TREATMENT, STORAGE, and DISPOSAL FACILITIES. - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.Facilities that treat, store, dispose, or incinerate hazardous waste.

RCRA GEN: EPA/MA DEP/CT DEP RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM

GENERATORS - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.Facilities that generate or transport hazardous waste or meet other RCRA requirements.LGN - Large Quantity GeneratorsSGN - Small Quantity GeneratorsVGN – Conditionally Exempt Generator.Included are RAATS (RCRA Administrative Action Tracking System) and CMEL (Compliance Monitoring & Enforcement List) facilities. CONNECTICUT HAZARDOUS WASTE MANIFEST – Database of all shipments of hazardous waste within, into or from Connecticut. The data includes date of shipment, transporter and TSD info, and material shipped and quantity. This data is appended to the details of existing generator records. MASSACHUSETTES HAZARDOUS WASTE GENERATOR – database of generators that are regulated under the MA DEP. VQN-MA = generates less than 220 pounds or 27 gallons per month of hazardous waste or waste oil.SQN-MA = generates 220 to 2,200 pounds or 27 to 270 gallons per month of waste oil.LQG-MA = generates greater than 2,200 lbs of hazardous waste or waste oil per month.

RCRA NLR: EPA RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM SITES - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.not currently classified by the EPA but are still included in the RCRAInfo database. Reasons for non classification: Failure to report in a timely matter. No longer in business. No longer in business at the listed address. No longer generating hazardous waste materials in quantities which require reporting.

Fed Brownfield: EPA BROWNFIELD MANAGEMENT SYSTEM (BMS) - database designed to assist EPA in collecting, tracking, and updating information, as well as reporting on the major activities and accomplishments of the various Brownfield grant Programs./n CLEANUPS IN MY COMMUNITY (subset) - Sites, facilities and properties that have been contaminated by hazardous materials and are being, or have been, cleaned up under EPA's brownfield's program.

ERNS: EPA/NRC EMERGENCY RESPONSE NOTIFICATION SYSTEM (ERNS) - Database of incidents reported to the National Response Center. These incidents include chemical spills, accidents involving chemicals (such as fires or explosions), oil spills, transportation accidents that involve oil or chemicals, releases of radioactive materials, sightings of oil sheens on bodies of water, terrorist incidents involving chemicals, incidents where illegally dumped chemicals have been found, and drills intended to prepare responders to handle these kinds of incidents. Data since January 2001 has been received from the National Response System database as the EPA no longer maintains this data.

Tribal Lands: DOI/BIA INDIAN LANDS OF THE UNITED STATES - Database of areas with boundaries established by treaty, statute, and (or) executive or court order, recognized by the Federal Government as territory in which American Indian tribes have primary governmental authority. The Indian Lands of the United States map layer shows areas of 640 acres or more, administered by the Bureau of Indian Affairs. Included are Federally-administered lands within a reservation which may or may not be considered part of the reservation.BUREAU OF INDIAN AFFIARS CONTACT - Regional contact information for the Bureau of Indian Affairs offices.

State/Tribal Sites: CA EPA SMBRPD / CAL SITES- The California Department of Toxic Substances Control (DTSC) has developed an electronic database system called Envirostor with information about sites that are known to be contaminated with hazardous substances as well as information on uncharacterized properties where further studies may reveal problems. The Site Mitigation and Brownfields Reuse Program Database (SMBRPD), formerly known as CalSites, is

used primarily by DTSC's staff as an informational tool to evaluate and track activities at properties that may have been affected by the release of hazardous substances. The SMBRPD displays information in six categories, two of which are found in ST. The categories listed under ST are: 1. State Response Sites. 2. School Property Evaluation Program Properties (SCH) Please Note: Our reports list the above sites as DB Type (STATE). Other categories found in the SMBRPD are listed in our reports in the DB Types OT and VC. Each Category contains information on properties based upon the type of work taking place at the site. State Response Sites contains only known and potential hazardous substance release sites considered as posing the greatest threat to the public. School sites included in ST will be found within the SMBRPD's School Property Evaluation Program. CORTESE LIST-Pursuant to Government Code Section 65962.5, the Hazardous Waste and Substances Sites List has been compiled by Cal/EPA, Hazardous Materials Data Management Program to provide information about the location of hazardous materials release sites. Cortese List sites that fall under DTSC's guidelines for State Response sites are included in our reports in the ST category as are qualifying sites from the Annual Work Plan (formerly Bond Expenditure Plan) and the historic ASPIS databases.

State Spills 90: CA EPA SLIC REGIONS 1 - 9- The California Regional Water Quality Control Boards maintain report of sites that have records of spills, leaks, investigation, and cleanups.

State/Tribal SWL: CA IWMB/SWRCB/COUNTY SWIS SOLID WASTE INFORMATION SYSTEM-The California Integrated Waste Management Board maintains a database on solid waste facilities, operations, and disposal sites throughout the state of California. The types of facilities found in this database include landfills, transfer stations, material recovery facilities, composting sites, transformation facilities, waste tire sites, and closed disposal sites. For more information on individual sites call the number listed in the source field.. Please Note: This database contains poor site location information for many sites in our reports; therefore, it may not be possible to locate or plot some sites in our reports. WMUDS-The State Water Resources Control Board maintained the Waste Management Unit Database System (WMUDS). It is no longer updated. It tracked management units for several regulatory programs related to waste management and its potential impact on groundwater. Two of these programs (SWAT & TPCA) are no longer on-going regulatory programs as described below. Chapter 15 (SC15) is still an on-going regulatory program and information is updated periodically but not to the WMUDS database. The WMUDS System contains information from the following agency databases: Facility, Waste Management Unit (WMU), Waste Discharger System (WDS), SWAT, Chapter 15, TPCA, RCRA, Inspections, Violations, and Enforcement's. Note: This database contains poor site location information for many sites in our reports; therefore, it may not be possible to locate or plot some sites in reports. ORANGE COUNTY LANDFILLS LIST- A list maintained by the Orange County Health Department.

State/Tribal LUST: CA SWRCB/COUNTY LUSTIS- The State Water Resources Control Board maintains a database of sites with confirmed or unconfirmed leaking underground storage tanks. Information for this database is collected from the states regional boards quarterly and integrated with this database. SAN DIEGO COUNTY LEAKING TANKS- The San Diego County Department of Environmental Health maintains a database of sites with confirmed or unconfirmed leaking underground storage tanks within its HE17/58 database. For more information on a specific file call the HazMat Duty Specialist at phone number listed in the source information field.

State/Tribal UST/AST: CA EPA/COUNTY/CITY ABOVEGROUND STORAGE TANKS LISTING-The Above Ground Petroleum Storage Act became State Law effective January 1, 1990. In general, the law requires owners or operators of AST's with petroleum products to file a storage statement and pay a fee by July 1, 1990 and every two years thereafter, take specific action to prevent spills, and in certain instances implement a groundwater monitoring program. This law does not apply to that portion of a tank facility associated with the production oil and regulated by the State Division of Oil and Gas of the Dept. of Conservation. SWEEPS / FIDS STATE REGISTERED UNDEGROUND STORAGE TANKS- Until 1994 the State Water Resources Control Board maintained a database of registered underground storage tanks statewide referred to as the SWEEPS System. The SWEEPS UST information was integrated with the CAL EPA's Facility Index System database (FIDS) which is a master index of information from numerous California agency environmental databases. That was last updated in 1994. We have included the UST information from the FIDS database in our reports for historical

purposes to help our clients identify where tanks may possibly have existed. For more information on specific sites from individual paper files archived at the State Water Resources Control Board call the number listed with the source information. INDIAN LANDS UNDERGROUND STORAGE TANKS LIST- A listing of underground storage tanks currently on Indian Lands under federal jurisdiction. California Indian Land USTS are administered by US EPA Region 9.CUPA DATABASES & SOURCES- Definition of a CUPA: A Certified Unified Program Agency (CUPA) is a local agency that has been certified by the CAL EPA to implement six state environmental programs within the local agency's jurisdiction. These can be a county, city, or JPA (Joint Powers Authority). This program was established under the amendments to the California Health and Safety Code made by SB 1082 in 1994. A Participating Agency (PA) is a local agency that has been designated by the local CUPA to administer one or more Unified Programs within their jurisdiction on behalf of the CUPA. A Designated Agency (DA) is an agency that has not been certified by the CUPA but is the responsible local agency that would implement the six unified programs until they are certified. Please Note: We collect and maintains information regarding Underground Storage Tanks from the majority of the CUPAS and Participating Agencies in the State of California. These agencies typically do not maintain nor release such information on a uniform or consistent schedule; therefore, currency of the data may vary. Please look at the details on a specific site with a UST record in the First Search Report to determine the actual currency date of the record as provided by the relevant agency. Numerous efforts are made on a regular basis to obtain updated records.

State/Tribal IC: CA EPA DEED-RESTRICTED SITES LISTING- The California EPA's Department of Toxic Substances Control Board maintains a list of deed-restricted sites, properties where the DTSC has placed limits or requirements on the future use of the property due to varying levels of cleanup possible, practical or necessary at the site.

State/Tribal VCP: CA EPA SMBRPD / CAL SITES- The California Department of Toxic Substances Control (DTSC) has developed an electronic database system called Envirostor with information about sites that are known to be contaminated with hazardous substances as well as information on uncharacterized properties where further studies may reveal problems. The Site Mitigation and Brownfields Reuse Program Database (SMBRPD), formerly known as CalSites, is used primarily by DTSC's staff as an informational tool to evaluate and track activities at properties that may have been affected by the release of hazardous substances. The Voluntary Cleanup Program (VCP) category contains only those properties undergoing voluntary investigation and/or cleanup and which are listed in the Voluntary Cleanup Program.Please Note: Our reports list the above sites as DB Type VC.

State Permits: CA EPA/COUNTY SAN DIEGO COUNTY HE17 PERMITS- The HE17/58 database tracks establishments issued permits and the status of their permits in relation to compliance with federal, state, and local regulations that the County oversees. It tracks if a site is a hazardous waste generator, TSD, gas station, has underground tanks, violations, or unauthorized releases. For more information on a specific file call the HazMat Duty Specialist at the phone number listed in the source information field. SAN BERNARDINO COUNTY HAZARDOUS MATERIALS PERMITS- Handlers and Generators Permit Information Maintained by the Hazardous Materials Division.

State Other: CA EPA/COUNTY SMBRPD / CAL SITES- The California Department of Toxic Substances Control (DTSC) has developed an electronic database system called Envirostor with information about sites that are known to be contaminated with hazardous substances as well as information on uncharacterized properties where further studies may reveal problems. The Site Mitigation and Brownfields Reuse Program Database (SMBRPD), formerly known as CalSites, is used primarily by DTSC's staff as an informational tool to evaluate and track activities at properties that may have been affected by the release of hazardous substances. The SMBRPD displays information in six categories, two of which are found in ST. The categories listed under OT are: 1. Unconfirmed Properties Referred to Another Local or State Agency (REF) 2. Properties where a No Further Action Determination has been made (NFA) Please Note: Our reports list the above sites as DB Type (OTHER). Other categories found in the SMBRPD are listed in our reports in the DB Types ST and VC.LA COUNTY SITE MITIGATION COMPLAINT CONTROL LOG- The County of Los Angeles Public Health Investigation Compliant Control Log. ORANGE COUNTY INDUSTRIAL SITE CLEANUPS- List maintained by the Orange County Environmental Health Agency. RIVERSIDE COUNTY WASTE GENERATORS-A list of facilities in Riverside County which

generate hazardous waste. SACRAMENTO COUNTY MASTER HAZMAT LIST-Master list of facilities within Sacramento County with potentially hazardous materials. SACRAMENTO COUNTY TOXIC SITE CLEANUPS-A list of sites where unauthorized releases of potentially hazardous materials have occurred.

Federal IC / EC: EPA FEDERAL ENGINEERING AND INSTITUTIONAL CONTROLS- Superfund sites that have either an engineering or an institutional control. The data includes the control and the media contaminated. RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM SITES (RCRA) – RCRA site the have institutional controls.

State/Tribal HW: CA EPA DEPARTMENT OF TOXIC SUBSTANCES CONTROL HAZARDOUS WASTE MANIFEST INVENTORY-Records maintained by the CA DTSC of Hazardous Waste Manifests used to track and document the transport of hazardous waste from a generator's site to the site of its final disposition.

Environmental FirstSearch Database Sources

NPL: EPA Environmental Protection Agency

Updated quarterly

NPL DELISTED: EPA Environmental Protection Agency

Updated quarterly

CERCLIS: EPA Environmental Protection Agency

Updated quarterly

NFRAP: EPA Environmental Protection Agency.

Updated quarterly

RCRA COR ACT: EPA Environmental Protection Agency.

Updated quarterly

RCRA TSD: EPA Environmental Protection Agency.

Updated quarterly

RCRA GEN: EPA/MA DEP/CT DEP Environmental Protection Agency, Massachusetts Department of Environmental Protection, Connecticut Department of Environmental Protection

Updated quarterly

RCRA NLR: EPA Environmental Protection Agency

Updated quarterly

Fed Brownfield: EPA Environmental Protection Agency

Updated quarterly

ERNS: EPA/NRC Environmental Protection AgencyNational Response Center.

Updated annually

Tribal Lands: DOI/BIA United States Department of the InteriorBureau of Indian Affairs

Updated annually

State/Tribal Sites: CA EPA The CAL EPA, Depart. Of Toxic Substances Control Phone: (916) 323-3400 For Cortese List information contact The CAL EPA, Department of Toxic Substances Control at (916) 445-6532

Updated quarterly/when available

State Spills 90: CA EPA The California State Water Resources Control Board For phone number listings of departments within each region visit their web sites at: http://www.swrcb.ca.gov/regions.html

Updated when available

State/Tribal SWL: CA IWMB/SWRCB/COUNTY The California Integrated Waste Management Board
Phone:(916) 255-2331
The State Water Resources Control Board
Phone:(916) 227-4365
Orange County Health Department
Phone:(714) 834-3536

Updated quarterly/when available

State/Tribal LUST: CA SWRCB/COUNTY The California State Water Resources Control Board Phone:(916) 227-4416 San Diego County Department of Environmental Health Phone:(619) 338-2242

Updated quarterly/when available

State/Tribal UST/AST: CA EPA/COUNTY/CITY The State Water Resources Control Board
Phone:(916) 227-4364
CAL EPA Department of Toxic Substances Control
Phone:(916)227-4404
US EPA Region 9 Underground Storage Tank Program
Phone: (415) 972-3372
ALAMEDA COUNTY CUPAS:
* County of Alameda Department of Environmental Health
* Cities of Berkeley, Fremont, Hayward, Livermore / Pleasanton, Newark, Oakland, San Leandro, Union
ALPINE COUNTY CUPA:
* Health Department (Only updated by agency sporadically)
AMADOR COUNTY CUPA:
* County of Amador Environmental Health Department
BUTTE COUNTY CUPA
* County of Butte Environmental Health Division (Only updated by agency biannually)
CALAVERAS COUNTY CUPA:
* County of Calaveras Environmental Health Department
COLUSA COUNTY CUPA:
* Environmental Health Dept.
CONTRA COSTA COUNTY CUPA:
* Hazardous Materials Program
DEL NORTE COUNTY CUPA:
* Department of Health and Social Services
EL DORADO COUNTY CUPAS:
* County of El Dorado Environmental Health - Solid Waste Div (Only updated by agency annually)

* County of El Dorado EMD Tahoe Division (Only updated by agency annually)
FRESNO COUNTY CUPA:
* Haz. Mat and Solid Waste Programs
GLENN COUNTY CUPA:
* Air Pollution Control District
HUMBOLDT COUNTY CUPA:
* Environmental Health Division
IMPERIAL COUNTY CUPA:
* Department of Planning and Building
INYO COUNTY CUPA:
* Environmental Health Department
KERN COUNTY CUPA:
* County of Kern Environmental Health Department
* City of Bakersfield Fire Department
KINGS COUNTY CUPA:
* Environmental Health Services
LAKE COUNTY CUPA:
* Division of Environmental Health
LASSEN COUNTY CUPA:
* Department of Agriculture
LOS ANGELES COUNTY CUPAS:
* County of Los Angeles Fire Department CUPA Data as maintained by the Los Angeles County Department of Public Works
* County of Los Angeles Environmental Programs Division
* Cities of Burbank, El Segundo, Glendale, Long Beach/Signal Hill, Los Angeles,Pasadena, Santa Fe Springs, Santa Monica, Torrance, Vernon
MADERA COUNTY CUPA:
* Environmental Health Department
MARIN COUNTY CUPA:
* County of Marin Office of Waste Management
* City of San Rafael Fire Department
MARIPOSA COUNTY CUPA:
* Health Department
MENDOCINO COUNTY CUPA:
* Environmental Health Department
MERCED COUNTY CUPA:
* Division of Environmental Health
MODOC COUNTY CUPA:
* Department of Agriculture
MONO COUNTY CUPA:
* Health Department
MONTEREY COUNTY CUPA:
* Environmental Health Division
NAPA COUNTY CUPA:
* Hazardous Materials Section
NEVADA COUNTY CUPA:
* Environmental Health Department
ORANGE COUNTY CUPAS:
* County of Orange Environmental Health Department

* Cities of Anaheim, Fullerton, Orange, Santa Ana
* County of Orange Environmental Health Department
PLACER COUNTY CUPAS:
* County of Placer Division of Environmental Health Field Office
* Tahoe City
* City of Roseville Roseville Fire Department
PLUMAS COUNTY CUPA:
* Environmental Health Department
RIVERSIDE COUNTY CUPA:
* Environmental Health Department
SACRAMENTO COUNTY CUPA:
* County Environmental Mgmt Dept, Haz. Mat. Div.
SAN BENITO COUNTY CUPA:
* City of Hollister Environmental Service Department
SAN BERNARDINO COUNTY CUPAS:
* County of San Bernardino Fire Department, Haz. Mat. Div.
* City of Hesperia Hesperia Fire Prevention Department
*City of Victorville Victorville Fire Department
SAN DIEGO COUNTY CUPA:
* The San Diego County Dept. of Environmental Health HE 17/58
SAN FRANCISCO COUNTY CUPA:
* Department of Public Health
SAN JOAQUIN COUNTY CUPA:
* Environmental Health Division
SAN LUIS OBISPO COUNTY CUPAS:
* County of San Luis Obispo Environmental Health Division
* City of San Luis Obispo City Fire Department
SAN MATEO COUNTY CUPA:
* Environmental Health Department
SANTA BARBARA COUNTY CUPA:
* County Fire Dept Protective Services Division
SANTA CLARA COUNTY CUPAS:
* County of Santa Clara Hazardous Materials Compliance Division
* Santa Clara County Central Fire Protection District (Covers Campbell, Cupertino, Los Gatos, & Morgan Hill)
* Cities of Gilroy, Milpitas, Mountain View, Palo Alto, San Jose Fire, Santa Clara, Sunnyvale
SANTA CRUZ COUNTY CUPA:
* Environmental Health Department
SHASTA COUNTY CUPA:
* Environmental Health Department
SIERRA COUNTY CUPA:
* Health Department
SISKIYOU COUNTY CUPA:
* Environmental Health Department
SONOMA COUNTY CUPAS:
* County of Sonoma Department Of Environmental Health
* Cities of Healdsburg / Sebastopol, Petaluma, Santa Rosa
STANISLAUS COUNTY CUPA:
* Department of Environmental Resources Haz. Mat. Division
SUTTER COUNTY CUPA:

* Department of Agriculture
TEHAMA COUNTY CUPA:
* Department of Environmental Health
TRINITY COUNTY CUPA:
* Department of Health
TULARE COUNTY CUPA:
* Environmental Health Department
TUOLUMNE COUNTY CUPA:
* Environmental Health
VENTURA COUNTY CUPAS:
* County of Ventura Environmental Health Division
* Cities of Oxnard, Ventura
YOLO COUNTY CUPA:
* Environmental Health Department
YUBA COUNTY CUPA:
* Yuba County of Emergency Services

Updated quarterly/annually/when available

State/Tribal IC: CA EPA The California EPA Department of Toxic Substances Control.Phone:(916) 255-3745

Updated Updated quarterly/annually/when available

State/Tribal VCP: CA EPA The California EPA Department of Toxic Substances Control.Phone:(916) 255-3745

Updated Updated quarterly/annually/when available

State Permits: CA EPA/COUNTY The San Diego County Depart. Of Environmental Health Phone:(619) 338-2211 San Bernardino County Fire Department Phone:(909) 387-3080

Updated quarterly/when available

State Other: CA EPA/COUNTY The CAL EPA, Depart. Of Toxic Substances Control Phone: (916) 323-3400 The Los Angeles County Hazardous Materials Division Phone: (323) 890-7806 Orange County Environmental Health Agency Phone: (714) 834-3536 Riverside County Department of Environmental Health, Hazardous Materials Management Division Phone:(951) 358-5055 Sacramento County Environmental Management Department Phone: (916) 875-8550

Updated quarterly/when available

Federal IC / EC: EPA Environmental Protection Agency

Updated quarterly

State/Tribal HW: CA EPA CAL EPA, Department of Toxic Substances Control Phone:(916) 255-087

Updated annually/when available

Environmental FirstSearch
Street Name Report for Streets within .25 Mile(s) of Target Property

Target Property: 671 BERRY AVE
HAYWARD CA 94544

JOB: 12062

Street Name	Dist/Dir	Street Name	Dist/Dir
Angelina Ln	0.05 NW		
Belmont Ave	0.16 NE		
BERRY AVE	0.00--		
Brooks Way	0.17 SW		
Central Blvd	0.14 NE		
Challenger Way	0.23 NW		
Charles Ave	0.21 SW		
Cochea Dr	0.22 SE		
Cochea St	0.22 SE		
Cody Rd	0.21 SE		
Culp Ave	0.13 SW		
Custer Rd	0.21 SW		
Del Mar Ave	0.2 NE		
Delmar Ct	0.25 NE		
Discoverer Pl	0.21 NW		
Dollar St	0.15 SE		
Evelyn Ln	0.23 SW		
Joyce St	0.23 NW		
Lewis Dr	0.24 SW		
Mission Blvd	0.11 NW		
Oneil Ave	0.14 NW		
Spring Dr	0.25 NE		
State Hwy 238	0.11 NW		
Sublett Dr	0.21 SE		
Torrano Ave	0.15 SE		
Voyager Way	0.2 NW		
Whitman St	0.07 SW		

Environmental FirstSearch

1 Mile Radius

ASTM Map: NPL, RCRACOR, STATE Sites

FIRSTSEARCH

671 BERRY AVE, HAYWARD CA 94544


Greyhound Bus Sta
Hayward High School
Bret Harte Intermediate School
All Saints Cemetery
Hillcrest School
Highland Elementary School
Winton Middle School
John Muir Elementary School
Harder Elementary School
Good Shepherd Lutheran Es
Holy Sepulchre Cemetery
Sorensen School
Moreau Catholic High School
Bowman Elementary School
Schafer Park Elementary School
Glassbrook Elementary School
Tennyson High School
Hayward Memorial Park
Spring Grove Park
Schafer Park
Sorensdale Park
Eden Greenway
California State Unive
Beckham Ln
Nina Ct
Nina St
2nd St
Oakridge Ct
Meek Ave
Winton Ave
Sycamore Ave
Orchard Ave
Osborn Ave
Berry Ave
Eastman St
Newton St
Virginia St
Goodrich St
Isabella St
Gloria St
Edwin Way
Sorensen Rd
Newhall St
Schafer Rd
Evans Ct
Calhoun St
Broadway St
Douglas St
Webster St
West Loop Rd
Eldridge Ave
W Harder Rd
Tarman Ave
Cypress Ave
W Jackson St
Foothill Blvd
E St
B St
Walpert St
Bland St
Carmel Ct
Patricia Ct
Dean St
Meek Ave
Pinedale Ct
Lilly St
Ellen Ave
Alves St
Joyce St
Thomas Ave
Arvilla Ln
Dale St
Muir St
Tioga Rd
Evelyn Ln
Frederic Ave
Pleasant Way
Lucien Way
Silverthorne Pl
Huntwood Ave
Austin Ave
Franklin Ave
Lund Ave
Clay Ave
Dollar St
Bel Aire Dr
Bryn Mawr Ave
Spring Dr
Westview Way
Tyrone Ave
Overlook Ave
Redstone Pl
Paintbrush Plz
Hayward Ct
Carisbrook
Leona Dr
Marie Dr
Margaret Dr
Sybil Ln
Mission Blvd
Jane Ave
Luvena Dr
Jacaranda Dr
Coleman Ave
Ventura Ave
Taft St
Grading Rd
Mocine Ave
Tarrago Ave
Adeline St
Mackenzie Pl
Hunwen Pl
Ranker Pl
Whitman
Cabot Blvd
Alice St
Grand St
Spire St
Paseo Pl
Watkins St
Alley
Myrtle St
Optimist St
Park St
D St
Dean St
Oakridge Ct
Bland St
Nina St
Nina Ct
Beckham Ln
Carisbrook
Hayward Ct
Paintbrush Plz
Overlook Ave
Redstone Pl
Leona Dr
Marie Dr
Margaret Dr
Sybil Ln
Mission Blvd

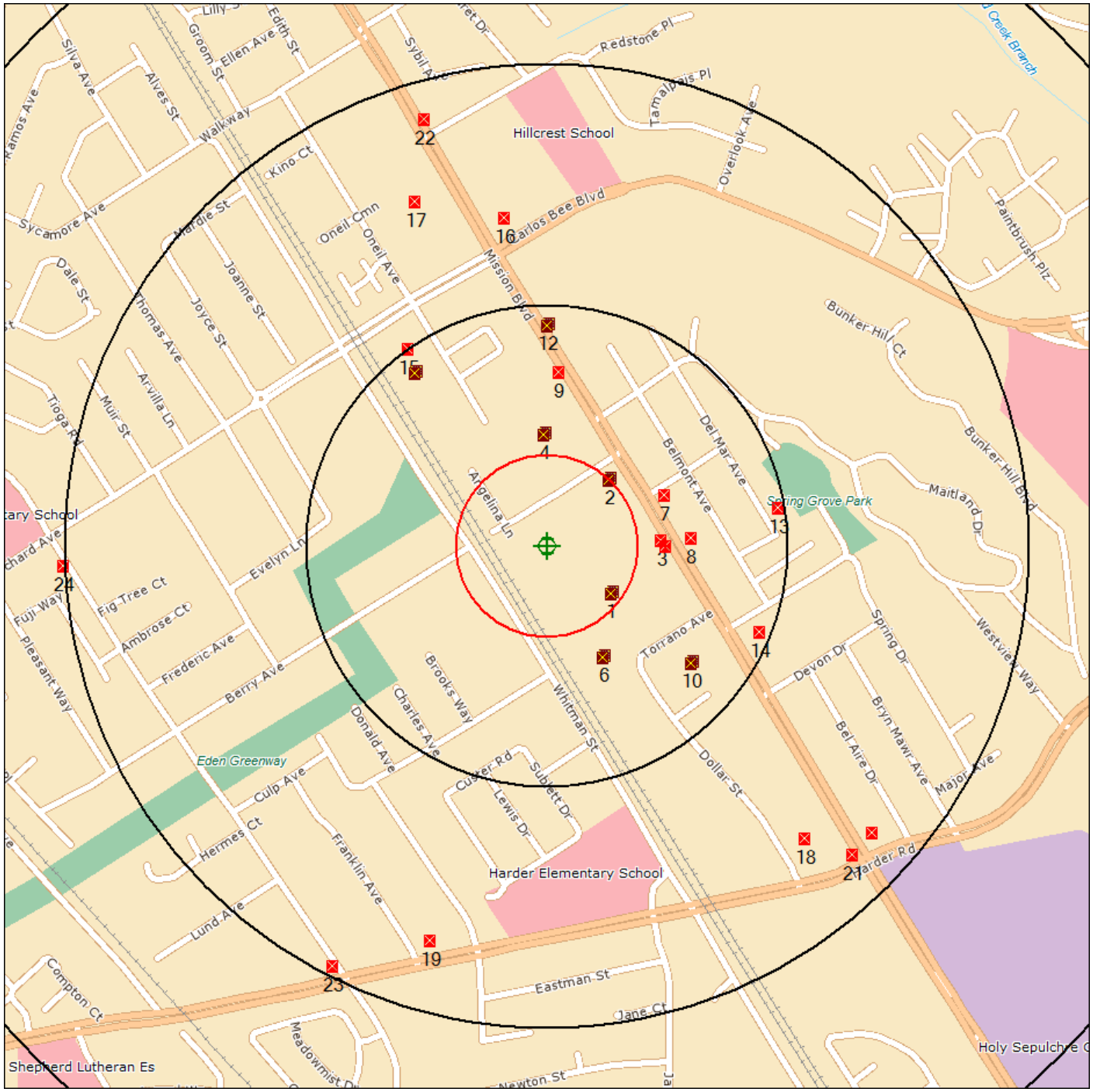
Environmental FirstSearch

.5 Mile Radius

ASTM Map: CERCLIS, RCRATSD, LUST, SWL

FIRSTSEARCH

671 BERRY AVE, HAYWARD CA 94544



Source: Tele Atlas

Target Site (Latitude: 37.655859 Longitude: -122.073020) .....

Identified Site, Multiple Sites, Receptor .....

NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste

Triballand.....

Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius

Environmental FirstSearch

.25 Mile Radius

ASTM Map: RCRAGEN, ERNS, UST, FED IC/EC, METH LABS

FIRSTSEARCH

671 BERRY AVE, HAYWARD CA 94544



Source: Tele Atlas

Target Site (Latitude: 37.655859 Longitude: -122.073020) .....

Identified Site, Multiple Sites, Receptor .....

NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste

Triballand.....

Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius

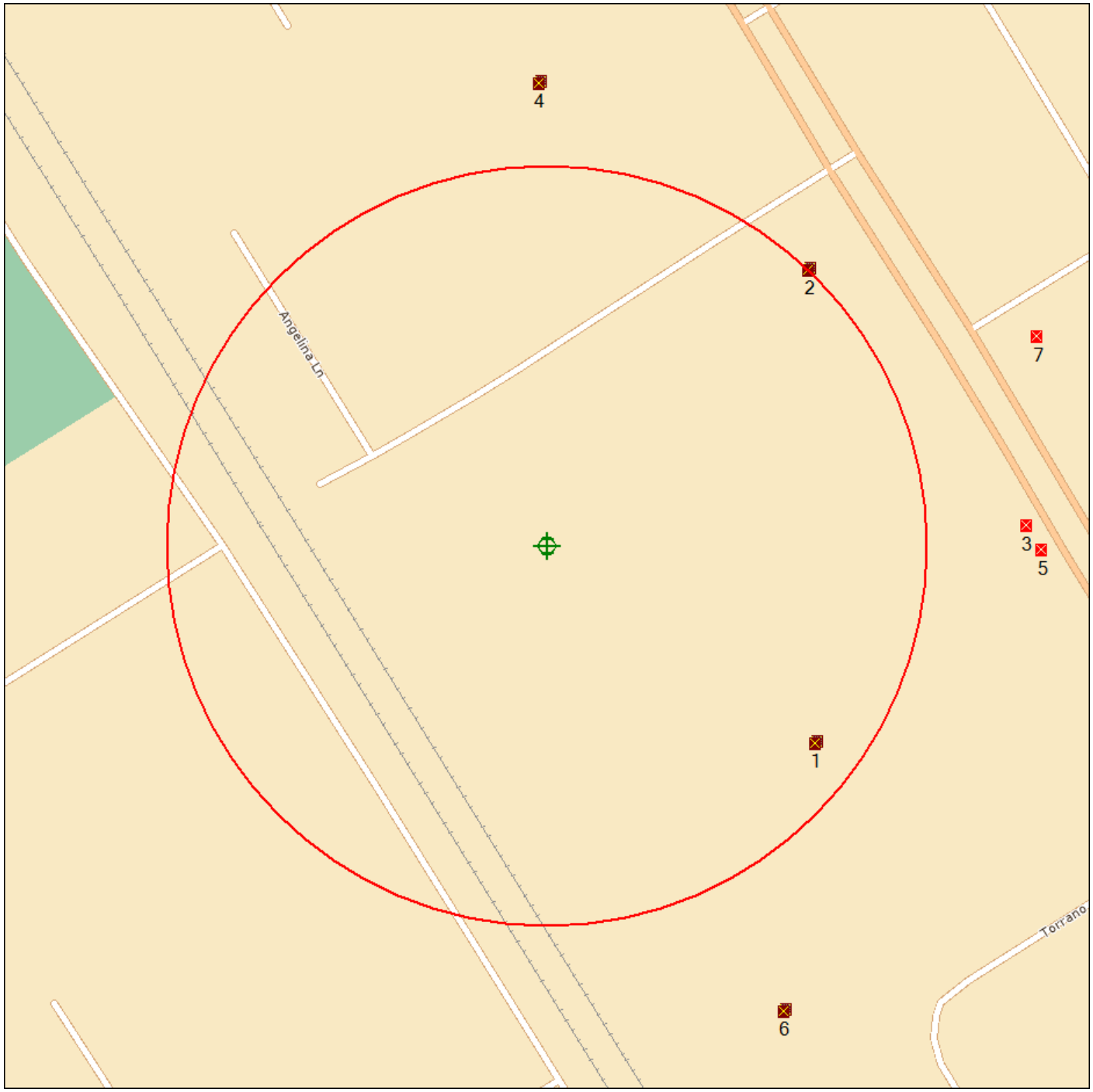
Environmental FirstSearch

.12 Mile Radius

Non-ASTM Map: HW Manifest

FIRSTSEARCH

671 BERRY AVE, HAYWARD CA 94544



Source: Tele Atlas

Target Site (Latitude: 37.655859 Longitude: -122.073020) .....

Identified Site, Multiple Sites, Receptor .....

NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste

Triballand.....

National Historic Sites and Landmark Sites .....

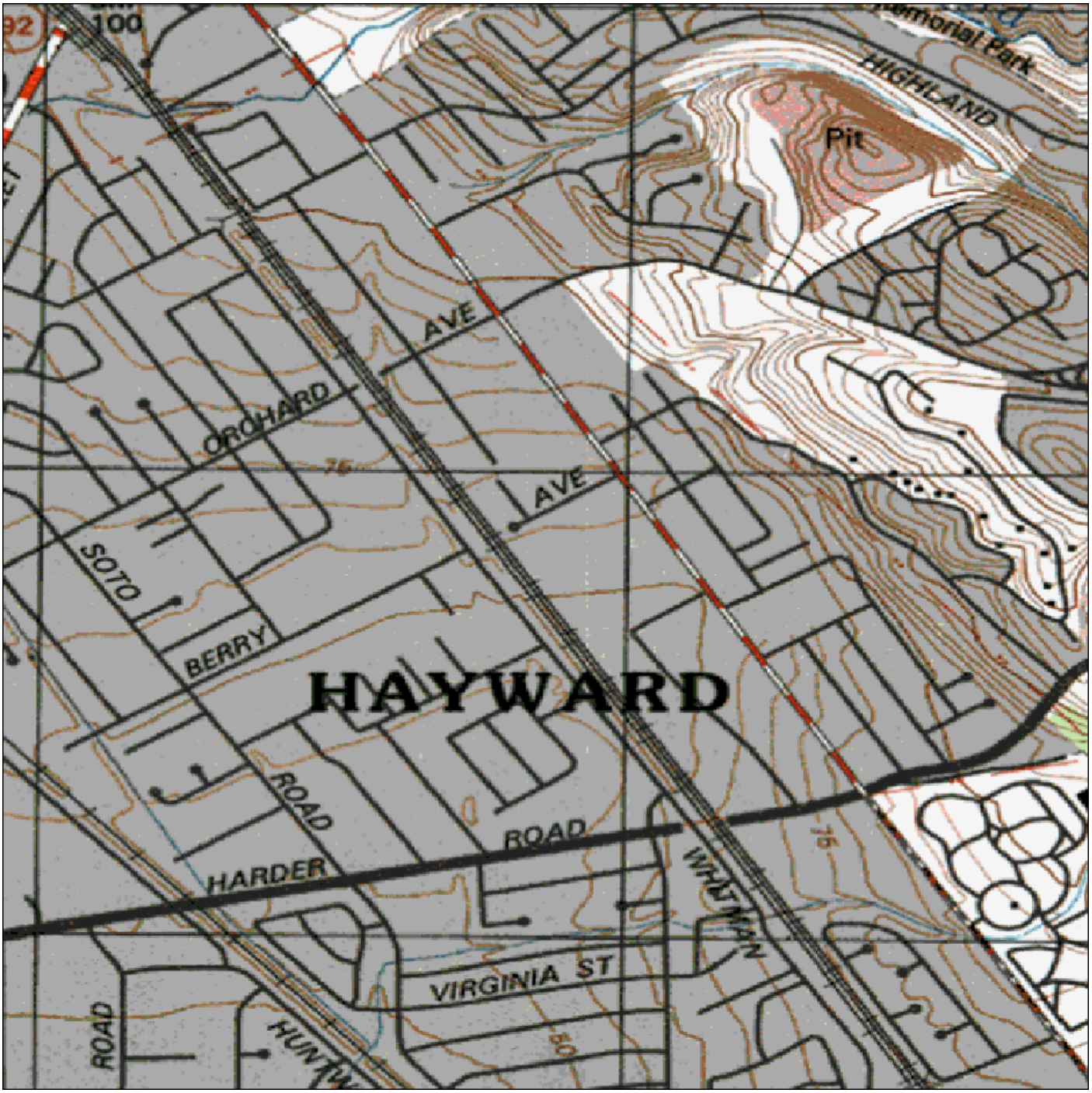
Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius

Site Location Map

Topo : 0.75 Mile Radius

671 BERRY AVE, HAYWARD CA 94544

FIRSTSEARCH



SOURCE: SCANNED USGS TOPOGRAPHIC QUADRANGLES
SCANNED BY MAPTECH AND USGS
DISTRIBUTED AUGUST, 2005.

Black Rings Represent 1/4 Mile Radii; Red Ring Represents 500 ft. Radius

0 495 990 1,980 2,970 3,960 Feet

FIRSTSEARCH	Data Supplied by: MAPTECH	Prepared by FirstSearch Technology Corporation		JOB NO.
		Map Name: HAYWARD Map Reference Code: 37122-F1-TF-024	Date Created: 1993-- Contour Interval: 20 feet	Date Revised: None-- Elevation:	FIGURE NO. 1

APPENDIX E

SITE ASSESSMENT CHECKLIST AND ASTM TRANSACTION SCREEN AND ENVIRONMENTAL SITE QUESTIONNAIRE

SITE RECONNAISSANCE CHECKLIST

Site:	671 Berry Ave, Hayward		
Inspector:	Andrew Savage	Date:	4-11-12
Non Facility Visitors:		Weather Conditions:	Cloudy + Cool
1. Topography/Fill Areas	Flat		
2. Soil/Geology:	clay		
3. Ground Water	shallow		
4. Vegetation	weeds		
5. Wetlands	none		
6. Drainage: Describe (i.e.,			
a) Building:	to Ground		
b) Site:	to Storm Sewer		
c) Regional:	to SF Bay		

7. Public Utilities:	✓	Drinking Water		Electric		Storm	✓	Waste Water Sewer		Heating	
Private Utilities (identify):	PG+E										

8. Evidence of Contamination: Note environmental features (i.e. asbestos, sloppy housekeeping, hazardous chemicals, storage areas, containment structures)

a) General Building Information:					
Building Number:	671		Type:	House 3 out Bldgs	
Age:	1940's	Features:			
Construction:	Wood				
b) Building Interior	OK				
Odors:	none				
Spillage:	none				
Potential Asbestos:	YES				
Housekeeping:	ok - poor				
c) Building Exterior Condition	ok - poor				
No. of Transformers	0	Content:			
Area of Stained Soils	no				
No. of Tanks/UST:	0	Age:	Size:	Type:	
No. of Tanks/AST:	0	Age:	Size:	Type:	
9. Storage Area Condition	ok				
No. of Drums:	1	Type:	empty in field		
No. of Gas Cylinders:	0	Type:			
Waste Removal:	yes	Number:	Type:	trash cans	
Debris:	yes	Number:	Type:	trash	
Signature:					

Date: 4/2/12

Site Address: **671 Berry Ave., Hayward**

Person Interviewed/Title: ROBERT A. JOHNSON, SUP

ASTM Transaction Screen and Environmental Site Assessment Questionnaire

	Owner	Occupants	Observed during site visit
1. Is the property or any adjoining site used for an industrial use?	Yes No (Unk)	Yes No Unk	Yes (No) Unk
2. To the best of your knowledge, has the property or any adjoining site been used for an industrial use?	Yes No (Unk)	Yes No Unk	Yes (No) Unk
3. Is the property or any adjoining site used for a gasoline station, motor repair, commercial printing, dry cleaning, photo processing, junkyard, landfill, or waste storage, disposal, processing or recycling?	Yes No (Unk)	Yes No Unk	Former adjacent site (Yes) No Unk
4. To the best of your knowledge, has the Property or any adjoining site been used for a gasoline station, motor repair, commercial printing, dry cleaning, photo processing, junkyard or for waste storage, disposal, processing or recycling?	Yes No (Unk)	Yes No Unk	Former Adjacent (Yes) No Unk
5) Are there, or has there been to the best of your knowledge, discarded batteries or pesticides, paints, or other chemicals in more than 5 gallon containers or 50 gallons in total stored or used at the Property?	Yes No (Unk)	Yes No Unk	Yes (No) Unk
6. Are there, or has there been to the best of your knowledge, any industrial drums (usually 55 gallon) or sacks of chemicals on the Property	Yes No (Unk)	Yes No Unk	Yes (No) Unk
7. Are there, or has there been to the best of your knowledge, any fill dirt from a contaminated or unknown site put on the property	Yes No (Unk)	Yes No Unk	Yes (No) Unk
8. Are there, or has there been to the best of your knowledge, any pits, ponds of lagoons on the Property in connection with waste treatment or disposal?	Yes No (Unk)	Yes No Unk	Yes (No) Unk
9. Is there, or has there been to the best of your knowledge, any stained soil or ground on the property?	Yes No (Unk)	Yes No Unk	Yes (No) Unk

return to:
510.886.5399 - fax
or
info@eras.biz

Site Address: **671 Berry Ave., Hayward**

	Owner	Occupants	Observed during site visit
10. Are there, or has there been to the best of your knowledge any registered or unregistered underground (UST) or above ground (AST) storage tanks on the property?	Yes No (Unk)	Yes No Unk	Yes (No) Unk
11. Are there, or has there been to the best of your knowledge, any vent pipes, fill pipes or access ways indicating a fill pipe on the Property?	Yes No (Unk)	Yes No Unk	Yes (No) Unk
12. Are there, or has there been to the best of your knowledge, any flooring, drains, or walls on the Property that are stained by substances other than water or are emitting foul odors?	Yes No (Unk)	Yes No Unk	Yes (No) Unk
13. If the Property is served by a non public water system, is there any indication that the water supply was contaminated or were contaminants identifie that exceeded guidelines.	Yes No (Unk)	Yes No Unk	Yes (No) Unk
14. Does the owner or occupant have knowledge of liens or governmental notification relating to violations of environmental law	Yes No (Unk)	Yes No Unk	Yes No Unk
15. Does the owner or occupant have knowledge of the current or past presence o f hazardous substances or petroleum products on the Property?	Yes No (Unk)	Yes No Unk	Yes No Unk
16. Does the owner or occupant have knowledge of any environmental site assessment that indicated the presence of contamination or recommended further assessment	Yes No (Unk)	Yes No Unk	Yes No Unk
17. does the owner or occupant have knowledge of past, threatened or pending lawsuits regarding a release of any hazardous release of any hazardous substance on the Property.	Yes No (Unk)	Yes No Unk	Yes No Unk
18. Does the Property discharge waste water, other than storm or sanitary water into sewer?	Yes No (Unk)	Yes No Unk	Yes (No) Unk
19. Is there any evidence to the best of your knowledge that hazardous substances, tires, batteries or other waste materials have been dumped, buried, or burned on the Property.	Yes No (Unk)	Yes No Unk	Yes (No) Unk
20. Is there a transformer, capacitor or other hydraulic equipment for which there are records indicating the presence of PCB's.	Yes No (Unk)	Yes No Unk	Yes (No) Unk

return to:
510.886.5399 - fax
or
info@eras.biz

Site Address: 671 Berry Ave., Hayward

How long have you owned the Property and who have the occupants been? What has the Property been used for in the past? (please provide duration)

THE BANK FORECLOSED ON THIS PROPERTY ON JANUARY 10, 2012

Who Occupied the Property prior to you?

THE SAME TENANT OF THE PRIOR OWNER, RATAN BOPPANA

VALLEY COMMUNITY BANK

Interviewee Signature: Robert A. Johnson

Interviewee Printed Name: ROBERT A. JOHNSON

Date: APRIL 2, 2012

Phone Number: 925-621-7203 DIRECT

Interviewer Signature:

Interviewer Printed Name: Andrew Savage

return to:
510.886.5399 - fax
or
info@eras.biz

APPENDIX F

25501 MISSION BOULEVARD – ENVIRONMENTAL DOCUMENTS

HAYWARD FIRE DEPT.

OFFICE OF THE FIRE MARSHAL

Administration
777 B Street
Hayward, CA 94541
510.583.4930

Headquarters
22700 Main Street
Hayward, CA 94541

Station 2
360 W. Harder Road
Hayward, CA 94544

Station 3
31982 Medinah Street
Hayward, CA 94544

Station 4
27836 Loyola Ave.
Hayward, CA 94545

Station 5
28595 Hayward Blvd.
Hayward, CA 94542

Station 6
1401 W. Winton Ave.
Hayward, CA 94545

Station 7
28270 Huntwood Ave.
Hayward, CA 94544

Station 8
25862 Canyons Pkwy.
Hayward, CA 94552

Station 9
24912 Second Street
Hayward, CA 94541

CERTIFIED MAIL RETURN RECEIPT REQUESTED

March 28, 2012

Michael Archey, Esquire
Auto Mission Limited
200 Southwest 1st Ave., 14th Floor
Fort Lauderdale, Florida 33301

RE: Request to Complete Cleanup and Investigation of LUST Site Contamination Case # RB 01-1130 – Former Hayward Ford at 25501 Mission Blvd., Hayward, California

Dear Mr. Archey:

A review of our inventory of leaking underground fuel tank (LUFT) site contamination cases showed the case captioned above as "OPEN – INACTIVE." This case, initiated in February 1991, has been inactive since January 2009. That was when the report dated November 24, 2008 the groundwater monitoring event of April 2008 was uploaded onto GeoTracker, the California database for site contamination cases and underground storage tanks. That report was prepared by Wallace A. Jensky, II, who was then Principal Geologist with Applied Environmental Technologies.

The Hayward Fire Department (HFD), as agents of the Regional Water Quality Control Board – San Francisco Bay Region (Regional Board), oversees LUFT cases in Hayward until such time when we can recommend closure of the case to the Regional Board.
We hereby require Auto Mission Ltd., property owner and identified responsible party in this case, to restart the stalled investigation and cleanup of this case and to pursue formal case closure, when it might be warranted. A qualified professional can recommend, but only the Regional Board can grant closures to LUFT cases in Hayward.

To get this case back on track, Auto Mission will have to contract with a qualified professional (a registered geologist or professional engineer) for the preparation of a work plan that will define a "path-to-closure" for the case. The work plan must consider the results of work that has been done, and come up with a conceptual site model based on what is known about the site, so far. It must then propose investigation and cleanup activities, including the revival of groundwater monitoring wells, groundwater monitoring, and the proper disposal of any

contaminated soil or groundwater that might be generated from the proposed activities. An essential element of a work plan is the time frame for its implementation.

Please have your consultant submit the required work plan and conceptual site model to the Hayward Fire Department, at the address printed below, on or before June 30, 2012. We are hoping that we can get the case moving to official closure, soon.

If you have any questions, please call us at (510) 583-4925 or send us an email at danny.galang@hayward-ca.gov.

Sincerely,

Danilo M. Galang
Environmental Specialist, AAIII

Copy:

Wallace A. Jensky, Jr.
JHA Environmental, Inc.
2646 Palma Drive, Suite 450
Ventura, California 93003

Carllett Grey-Wilson
AutoNation
110 Southeast 6th St., 20th Floor
Fort Lauderdale, Florida 33301

APPLIED ENVIRONMENTAL TECHNOLOGIES INC.
4561 Market St., Suite B • Ventura, CA 93003 • Phone: (805) 650-1400 Fax: (805) 650-1576

November 24, 2008
Ref. No. 0876-88Q

Hayward Fire Department
Hazardous Materials Office
777 B Street
Hayward, California 94541-5007

Case No. 01-1130

Attention: Mr. Danilo M. Galang
Environmental Specialist

REPORT
Groundwater Monitoring and Sampling (Second Quarter 2008)
Hayward Ford, 25501 Mission Boulevard, Hayward, California

Introduction

Applied Environmental Technologies, Inc. (AET) is pleased to provide this report documenting the results of the groundwater monitoring and sampling for the second quarter 2008 performed at the referenced Site (Plate 1). The Site was formerly occupied by Hayward Ford as an automobile sales and service facility, and at the time of the monitoring and sampling event Hayward Ford had ceased operations at the Site and had moved to a new location. The new contact for the Site is:

Former Hayward Ford
110 Southeast Sixth Street, 20th Floor
Fort Lauderdale, Florida 33301
Attention: Michael Archey, Esquire

Please do not send correspondence to the Site address, but include a cc: to Wallace Jensky at AET (wjensky@applied-environmental.com).

Physical Setting

The Site is located in the north-central Coast Ranges Geomorphic Province of California on the East Bay Plain, an elongated northwest trending alluvial plain along the east flank of the San Francisco Bay. The Hayward Fault bounds the plain to the northeast with hills and mountains of the Diablo Range further east. The Site elevation is approximately 60 feet above mean sea level (msl). Regional topography slopes down to the west toward the San Francisco Bay. Topography in the Site vicinity slopes down towards the south-southwest at approximately 40 feet per mile.

Alluvial fan deposits derived from the Diablo Range to the east underlie the Site. The late Cenozoic age alluvium consists of interbedded deposits of silty clay, gravelly clay, and sandy clay

with discontinuous lenses of silty sand. The current depth to shallow groundwater beneath the Site is approximately 23 feet as measured in the three on-Site monitoring wells.

Site Description and Background

The Site consists of four buildings: two buildings located in the southeast portion of the Site, one of which was a showroom with sales and business offices, and a parts department, and the other was a showroom with offices; and two service department buildings located in the northeast (front) and central (rear) portions of the Site. Two former underground storage tanks (USTs) were located near the southwest corner of the front service building (Plate 2).

Lift Removal, impacted soil excavation, and monitoring well installation, 1990 - 1991

In July and August 1990, one lift was removed in the main service building. According to an Alameda County Environmental Health Division (ACEHD) Inspection report, there was visible staining in the bottom of the excavation following the lift removal. A soil sample at a depth of 16.75 feet below ground surface (bgs) contained Oil & Grease (EPA Test Method 413.2) at 9,000 milligrams per kilogram (mg/kg). Impacted soil was reportedly excavated in October 1990.

A groundwater well (currently identified as MW-2) was installed next to the lift excavation in accordance with a May 21, 1991 Workplan submitted to ACEHD. As reported, no impacted groundwater was detected at MW-2 (no total petroleum hydrocarbons as gasoline, diesel, or oil [TPHg, TPHd, and TPHo] and no benzene, toluene, ethylbenzene, and xylenes [BTEX]). Groundwater samples collected from MW-2 in March 1997 and December 1997 were analyzed for total recoverable petroleum hydrocarbons (TRPH). No TRPH was detected during either sampling event.

Former Fuel USTs

Two former USTs (one 2,000-gallon UST for gasoline and one 2,000-gallon UST for diesel) were located outside the southwest corner of the front service building (Detail Shop, Plate 2). In 1986, a monitoring well was installed near the USTs. Groundwater was encountered at approximately 32 feet bgs, and the boring was competed as a groundwater-monitoring well (currently identified as MW-3). The two USTs were removed in October 1992. Four soil samples were collected from beneath the tanks and analyzed for TPHg or TPHd (as appropriate for the tank contents) using modified EPA Test Method 8015 and for BTEX using EPA Test Method 8020. As reported, TPHg was detected at a maximum concentration of 130 mg/kg, and toluene, ethylbenzene, and xylenes were detected at maximum concentrations of 6.6 micrograms per kilogram (µg/kg), 26 µg/kg, and 94 µg/kg, respectively.

In mid to late December 1992, five soil borings (B-1 through B-5) and one groundwater well (STMW-1; aka. MW-1) were drilled near the former fuel USTs. On December 21, 1992, the three wells (MW-1 [STMW-1}, MW-2, and MW-3 were monitored and sampled. No impacted groundwater was detected at MW-1 (STMW-1) or MW-2; however, MW-3 contained TPHd at 7,400

milligrams per liter (mg/L), TPHg at 14,000 micrograms per liter (µg/L), and individual BTEX at concentrations ranging from 4,500 to 44,000 µg/L (Table 2).

Groundwater Well Monitoring, Purging, Sampling, April 2008

On April 9, 2008, AET monitored, purged, and sampled groundwater from the three wells MW-1 (STMW-1), MW-2, and MW-3 in accordance with State and County standards. The wells were monitored for depth to groundwater. Following monitoring, the wells were purged approximately three well volumes (approximately 10 gallons from the 6-inch-diameter Well MW-3 and 4 gallons each from the 2-inch-diameter Wells MW-1 [STMW-1] and MW-2).

Following purging, the wells were sampled using disposable Teflon bottom-emptying bailers. The groundwater samples were labeled and placed in a chilled ice chest for transport to a state-certified laboratory under chain-of-custody protocols.

Purged groundwater was contained with the decon-water in a DOT-approved, 55-gallon polyethylene drum, labeled, and temporarily stored onsite in a secured location pending receipt of laboratory analytical data.

Laboratory Analysis

The three groundwater samples were analyzed by a state-certified laboratory for TPHd and TPHo using modified EPA Test Method 8015, and for TPHg and full-scan volatile organic compounds (including oxygenate compounds) using EPA Test Method 8260B.

Findings

A summary of the depth to groundwater levels in Wells STMW-1 through MW-3 is provided on Table 1. A summary of the laboratory results is provided on Table 2, and copies of the laboratory reports and chain-of-custody documentation are provided in Attachment A.

Groundwater Monitoring

On April 9, 2008, depth to groundwater (measured from the top of the well casings) ranged from 22.45 feet in well MW-1 to 23.65 feet in well MW-2. Based on the depth to water measurements and the reported relative wellhead elevations, the groundwater elevation was calculated for each well location (Table 1). Based on the data, the groundwater flow direction beneath the Site is towards the south-southwest at a gradient of 0.005 feet per foot (Plate 3).

Laboratory Results

The laboratory reported no hydrocarbon impacts in the groundwater sample from well MW-2 located in the main service building. At MW-1, TPHg and ethylbenzene were detected at 1,270 µg/L and 2.34 µg/L, respectively. At MW-3, located near the former gasoline and diesel USTs, TPHg was

detected at 74 µg/L and benzene was detected at 2.8 µg/L. No fuel oxygenate compounds (including MTBE) were detected in the groundwater from any of the wells. Concentrations of TPHg, benzene, and MTBE are shown on Plates 4, 5, and 6, respectively.

Purged Groundwater Disposal

The drummed groundwater water was profiled for disposal. On April 29, 2008, the water was transported offsite by Environmental Recovery Services (ERS) and properly disposed at Liquid Environmental Solutions (a licensed facility in Phoenix, Arizona). A copy of the disposal manifest is provided in Attachment B.

Geotracker

The report will be uploaded to the GeoTracker database as soon as AET receives authorization for access to the GeoTracker database for the Site.

Discussion

Based on the information presented in this report, AET concludes that the groundwater currently is impacted with gasoline-related compounds at MW-1 (STMW-1) and MW-3; however, the concentrations at MW-3 are significantly less than those reported in December 1992, indicating that natural attenuation is likely occurring.

A Workplan for additional groundwater assessment in proximity to the former USTs will be provided in the near future. Continued groundwater monitoring will be performed during the fourth quarter 2008.

Limitations

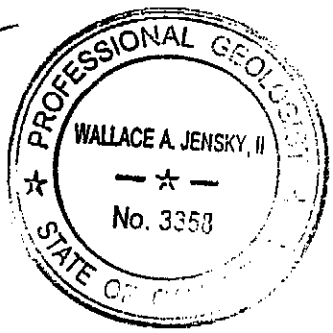
This report has been prepared for the Former Hayward Ford and its affiliates located at 25501 Mission Boulevard, Hayward, California. The findings and interpretations in this report have been developed based on the review of existing information pertaining to the subject Site. Inferences with respect to potential subsurface contamination are based on limited soil and groundwater data. It should be recognized that subsurface contamination can vary laterally and with depth below a given Site.

o 0 o

If you have any questions or require additional information, please call the undersigned.

Yours very truly,
Applied Environmental
Technologies, Inc.

Wallace A. Jensky, II, PG
Principal Geologist



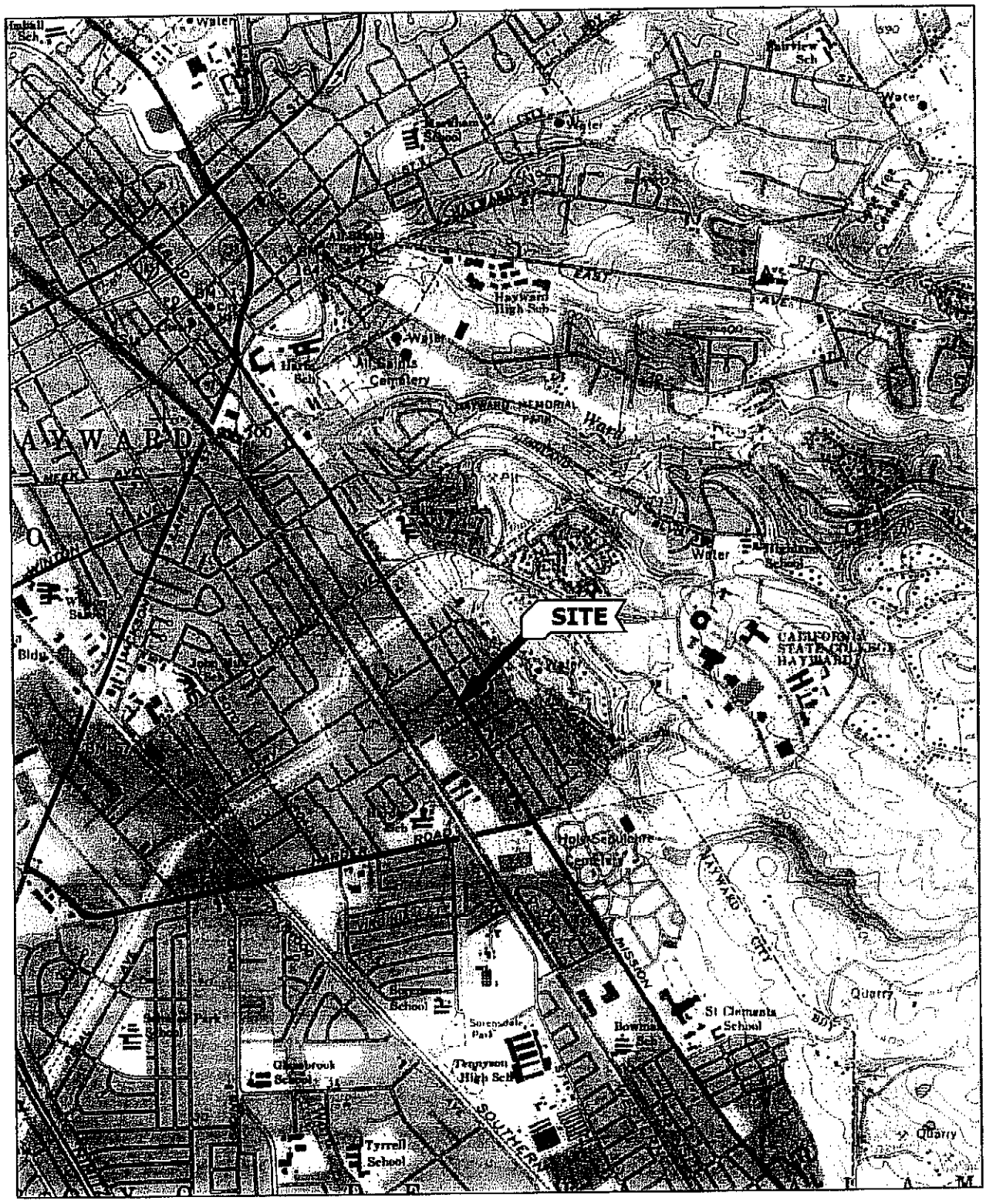
Attachments:

Plate 1 – Location Map
Plate 2 – Site Plan
Plate 3 – Groundwater Elevation Contour Map, April 2008
Plate 4 – Iso-Concentration Contour Map of TPHg in Groundwater, April 2008
Plate 5 – Iso-Concentration Contour Map of Benzene in Groundwater, April 2008
Plate 6 – Iso-Concentration Contour Map of MTBE in Groundwater, April 2008

Table 1 – Cumulative Groundwater Elevation Data
Table 2 – Cumulative Groundwater Well Analytical Results

Attachment A - Laboratory Report and Chain-of-Custody Documentation
Attachment B - Manifest for Groundwater Drum Disposal

PLATES



0' 2000' 1 MILE

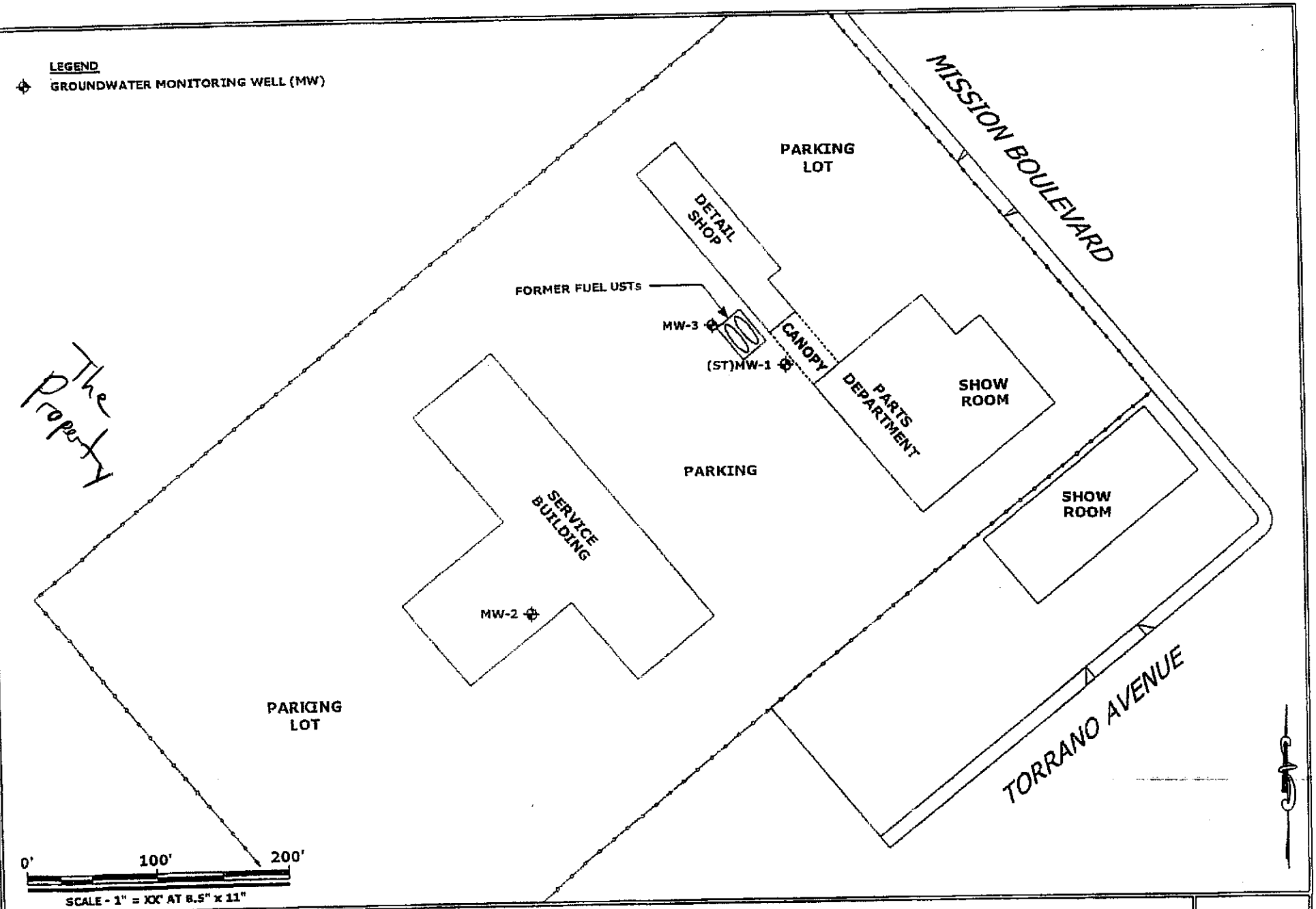
SCALE - 1" = 2000' AT 8.5" x 11"

Applied Environmental Technologies, Inc.
4561 Market Street, Suite B • Ventura, California 93003
Phone (805)650-1400 Fax (805)650-1576

SITE LOCATION MAP
25501 MISSION BLVD.
HAYWARD, CALIFORNIA

PLATE REFERENCE 0876-88_P1 | PROJECT NUMBER 0876-88

PLATE 1

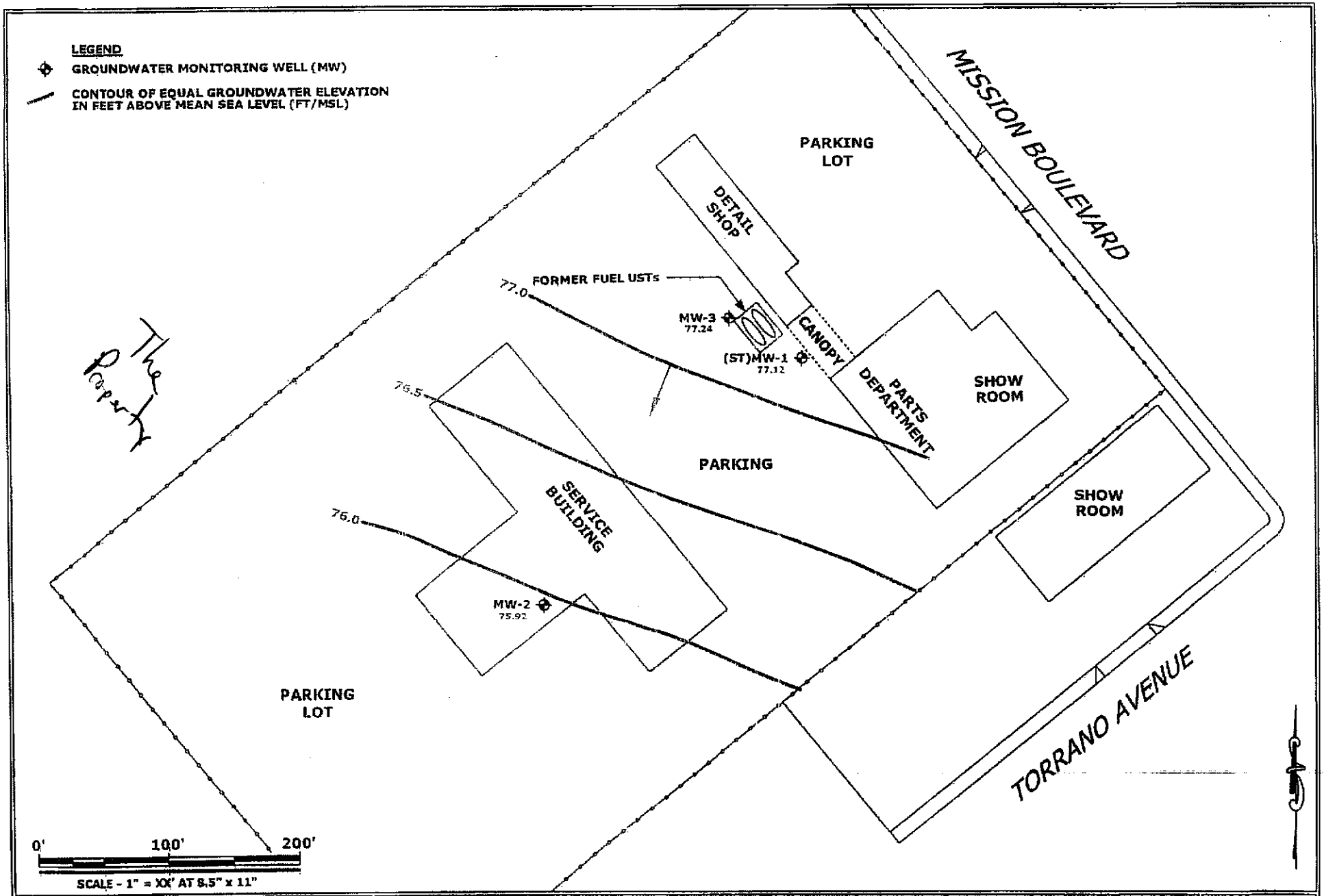


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Phone (805)650-1400 Fax (805)650-1576

SITE PLAN
25501 MISSION BLVD
HAYWARD, CALIFORNIA

PLATE REFERENCE 0876-88_Q2 | NOVEMBER 4, 2008 | PROJECT NUMBER 0876-88

PLATE 2



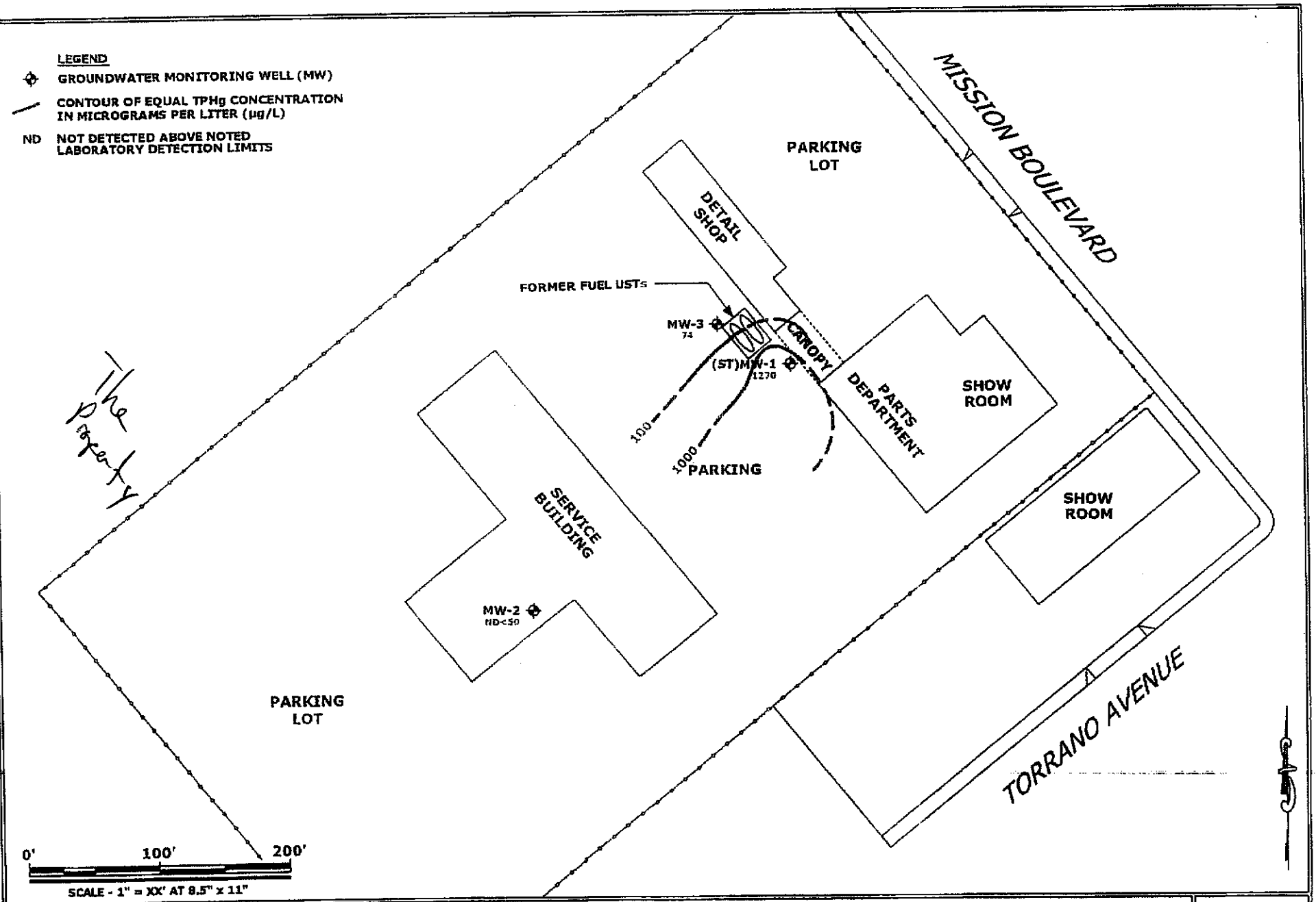
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Phone (805)650-1400 Fax (805)650-1576

GROUNDWATER ELEVATION CONTOUR MAP - APRIL, 2008

25501 MISSION BLVD
HAYWARD, CALIFORNIA

PLATE REFERENCE 0876-88_Q3	NOVEMBER 4, 2008	PROJECT NUMBER 0876-88

PLATE 3



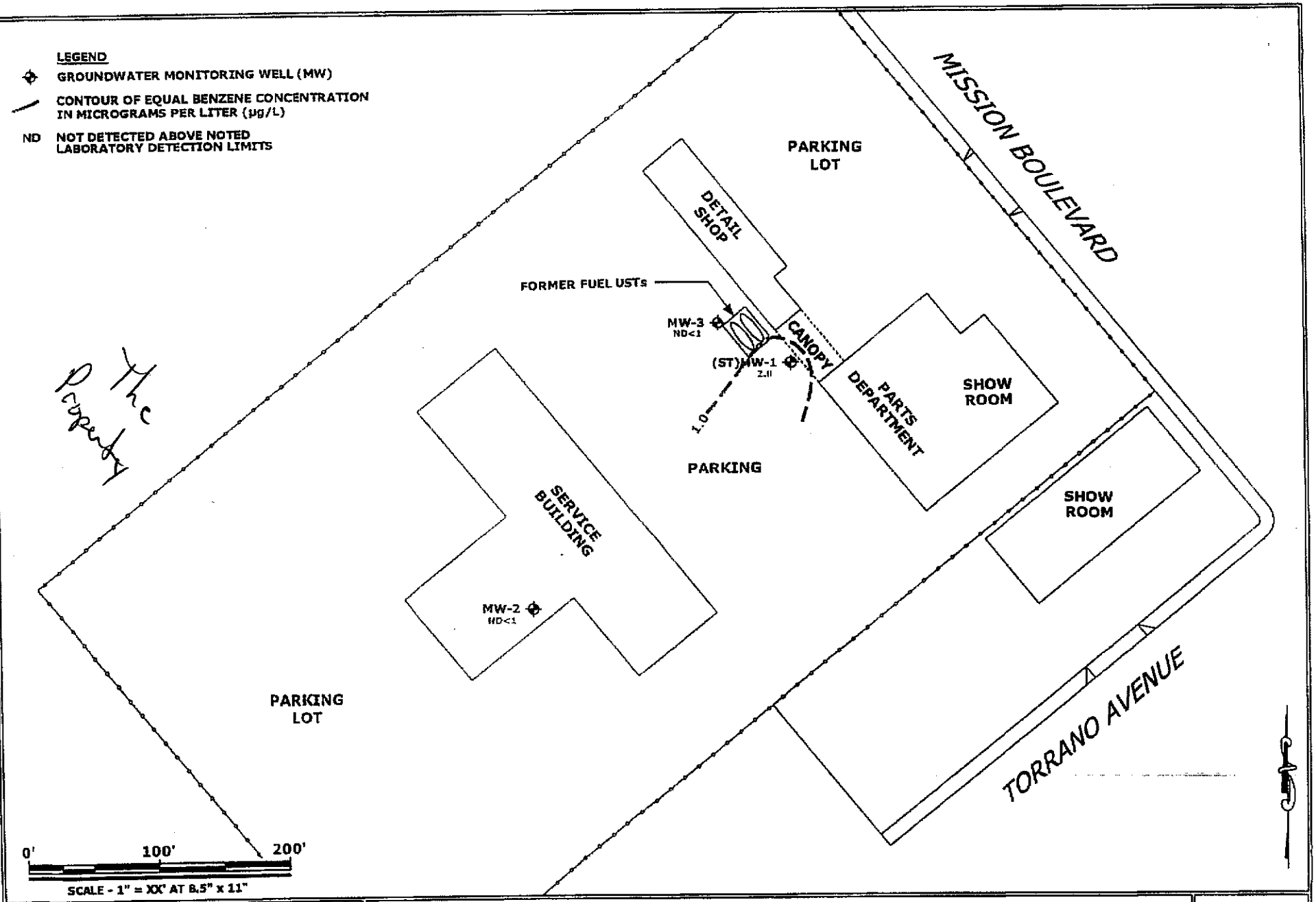
Applied Environmental Technologies, Inc.
4561 Market Street, Suite B • Ventura, California 93003
Phone (805)650-1400 Fax (805)650-1576

ISO-CONCENTRATION CONTOUR MAP OF TPHg IN GROUNDWATER (IN µg/L) - APRIL, 2008

25501 MISSION BLVD
HAYWARD, CALIFORNIA

PLATE REFERENCE 0876-88_Q4	NOVEMBER 5, 2008	PROJECT NUMBER 0876-88

PLATE 4



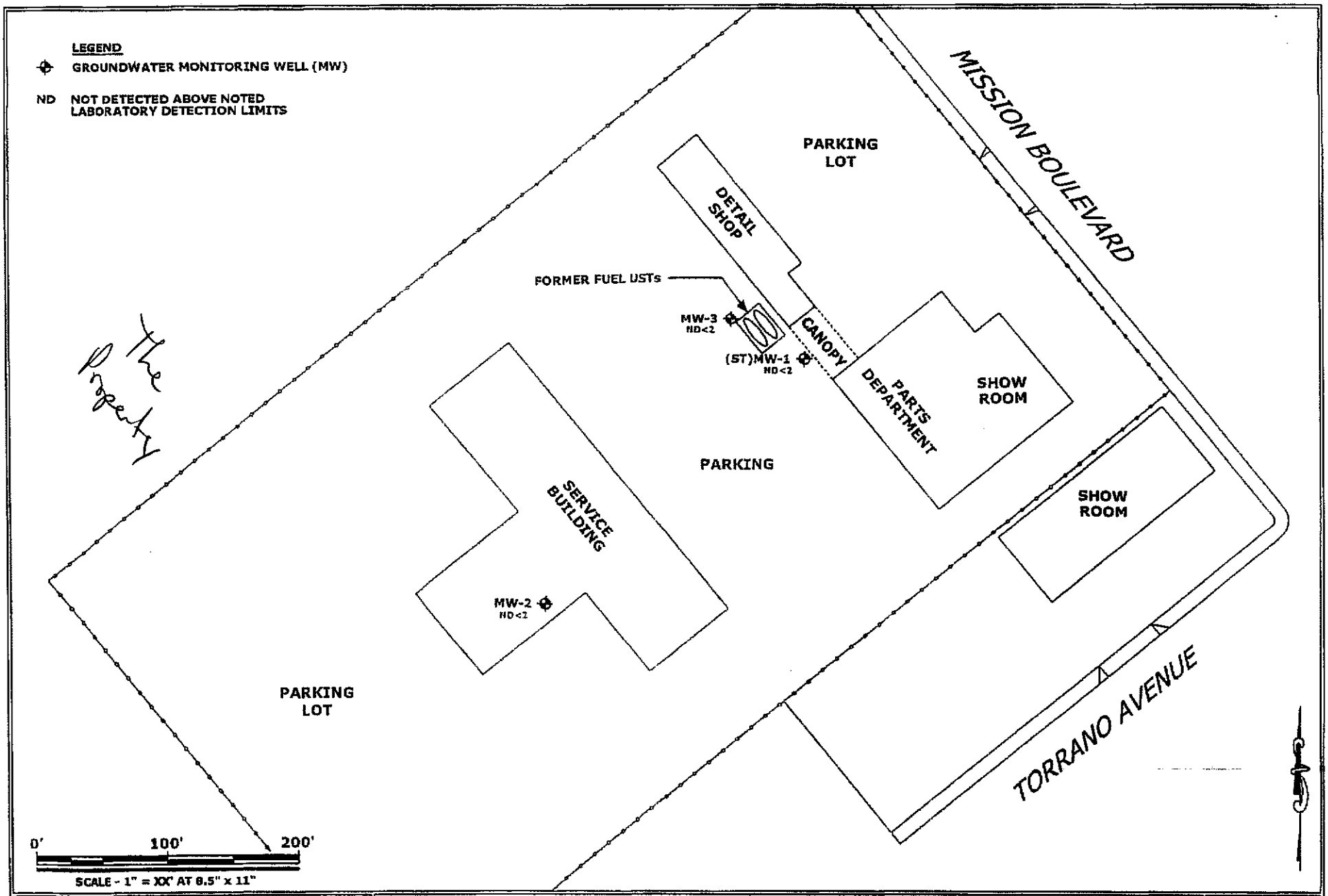
Applied Environmental Technologies, Inc.
4561 Market Street, Suite B • Ventura, California 93003
Phone (805)650-1400 Fax (805)650-1576

ISO-CONCENTRATION CONTOUR MAP OF BENZENE IN GROUNDWATER (IN µg/L) - APRIL, 2008

25501 MISSION BLVD
HAYWARD, CALIFORNIA

PLATE REFERENCE 0876-88_Q5	NOVEMBER 5, 2008	PROJECT NUMBER 0876-88

PLATE 5



Applied Environmental Technologies, Inc.
4561 Market Street, Suite B • Ventura, California 93003
Phone (805)650-1400 Fax (805)650-1576

ISO-CONCENTRATION CONTOUR MAP OF MTBE IN GROUNDWATER (IN µg/L) - APRIL, 2008

25501 MISSION BLVD
HAYWARD, CALIFORNIA

PLATE REFERENCE 0876-88_Q6	NOVEMBER 5, 2008	PROJECT NUMBER 0876-88

PLATE 6

APPENDIX G

25225 MISSION BOULEVARD – ENVIRONMENTAL DOCUMENTS

California Regional Water Quality Control Board
San Francisco Bay Region

Winston H. Hickox
Secretary for Environmental Protection

Internet Address: http://www.swrcb.ca.gov
1515 Clay Street, Suite 1400, Oakland, California 94612
Phone (510) 622-2300 • FAX (510) 622-2460

Gray Davis
Governor

October 22, 2001
File No. 2198.17(CTH)
RB File No. 01-1477

Thrifty Oil Company
13539 East Foster Road
Santa Fe Springs, CA 90670

Subject: Transmittal of the Closure Letter and Summary,
Arco/Thrifty Oil Company Station #055 at 25225 Mission Blvd., Hayward, CA

Dear Sir or Madam:

Attached please find the uniform underground storage tank closure letter and the site summary form for the subject site.

Please contact Chuck Headlee of my staff at (510) 622-2433 or cth@rb2.swrcb.ca.gov if you have any questions regarding this matter.

Sincerely,

Stephen A. Hill
Chief, Toxics Cleanup Division

For Loretta K. Barsamian
Executive Officer

Enclosure: Closure Letter
Site Closure Summary

cc: Hugh J. Murphy, Hayward Fire Department
Hazardous Materials Division
777 B Street
Hayward, CA 94541

Allan Patton & Steve Mizera, SWRCB
Division of Clean Waters Programs
1001 I Street
Sacramento, CA 98512

01-1477.tra

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our Web-site at http://www.swrcb.ca.gov.

California Regional Water Quality Control Board
San Francisco Bay Region

Winston H. Hickox
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Phone (510) 622-2300 • FAX (510) 622-2460

Gray Davis
Governor

October 22, 2001
File No. 2198.17(CTH)
RB File No. 01-1477

Thrifty Oil Company
13539 East Foster Road
Santa Fe Springs, CA 90670

Subject: Closure Letter for Arco/Thrifty Oil Company Station #055 at 25225 Mission Boulevard, Hayward, CA

Dear Sir or Madam:

This letter confirms the completion of site investigation and remedial action for the underground storage tank(s) formerly located at the above mentioned 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 the information in the above-referenced file and with the provision that the information provided to this agency was accurate and representative of site conditions, no further action related to the underground tank release is required.

This notice is issued pursuant to a regulation contained in Section 2721(e) of Title 23 of the California Code of Regulations.

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

Sincerely,

for

Loretta K. Barsamian
Executive Officer

01-1477.cls

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our Web-site at http://www.swrcb.ca.gov.

CITY OF
HAYWARD
HEART OF THE BAY

October 15, 2001

Chuck Headlee, Associate Engineering Geologist
California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612

Subject: Case Closure Request for RB File No. 01-1477, the Contamination Site Case of Thrifty Oil Company Station #055 at 25225 Mission Blvd., Hayward, California

Dear Mr. Headlee:

The Hayward Fire Department, as the local implementing agency, would like to request that closure be granted for the site contamination case at the Thrifty Oil Station #055 facility in Hayward, captioned above. This request is based on recent and historical soil and groundwater data and monitoring results reported by Thrifty Oil Company's Environmental Affairs Department, an in-house environmental and technical department within Thrifty Oil Company, the sole property owner. Technical reports received from Thrifty Oil Company were stamped/signed by an in-house registered Environmental Assessor or a Registered Geologist with the State of California.

Site Background

This site is an operating ARCO Products Company gasoline station at the southwest corner of Mission Blvd. and Berry Street in Hayward, California. The site is, on the whole, rectangular in shape and approximately 17,200 square feet in area. It is covered with asphalt concrete and driveways are situated along both frontage streets. Thrifty anticipates that this site will remain a retail gasoline service station.

In August 1986, Groundwater Technology, Inc. (GTI) drilled six exploratory soil borings in the vicinity of the UST's at that time, to a depth of 20 ft to 40 ft below ground surface. Three of these borings were converted into groundwater monitoring wells (MW-1, MW-2, and MW-3). The highest concentrations of hydrocarbons in soil and groundwater at the time the borings were advanced, were 80 ppm and 29 ppm, respectively. Both values were observed in MW-3.

In September 1987, Hydrotech Consultants conducted an investigation at the site. This consisted of drilling four (4) additional exploratory borings to depths of 20 ft bgs. Selected soil samples gave "not detected" analytical results.

A third investigation was conducted by McLaren Environmental in February 1989. Two groundwater monitoring wells were installed (BW-4 and BW-5) plus one vapor monitoring well (BV-6). The highest concentrations in soil and groundwater were found in BW-4 : 60 ppm TPH-g in soil and 23 ppb benzene in groundwater.

Thrifty Oil conducted another investigation in September 1995. A monitoring well (MW-6) was installed

and hydrocarbon in soil was "not detected." Benzene in groundwater was at 2.1 ppb.

In June 1998, three UST systems were removed from the site. (A waste oil tank was removed in September 1986 from the southwest corner of the property where MW-4 was subsequently installed.) Pinnacle Environmental Solutions documented the tank removal which reported the following "highs' for soil analytical results: TPH-g – 300 ppm; benzene – 0.3 ppm; and MTBE – 4.1 ppm. Some 1,053 tons of soil was removed during the over excavation of impacted soil, prior to the installation of replacement tanks in the same excavation.

Soil Investigation

At the time of UST removal, 20 soil samples were collected from the UST excavation pit, the piping trench, and under the dispensers. The samples were analyzed for TPH-g, BTEX, and MTBE. Analytical results are summarized in a table attached tot he Site Closure Summary. From the 6 tank pit samples collected, the highest values obtained were: 920 mg/kg TPH-g, 0.30 mg/kg; benzene, and 72 mg/kg; MTBE.

To install replacement tanks, the tank pit was over excavated to remove impacted soil. The last stockpile of soil removed from the excavation was analyzed prior to disposal. Highest values obtained were 40 ppm TPH-g, 0.15 ppm benzene, and <0.25 ppm MTBE. For the waste oil tank location, the soil from under the tank yielded 219 ppm TPH as motor oil at the time the tnak was removed. Soil sample taken from the vicinity of the former waste oil tank during the development of MW-4 showed TPH motor oil at 8 ppm.

Groundwater Investigation

The local groundwater flow is toward the south - southwest with a gradient of approximately 0.11

Thrifty retained BBL Environmental to conduct a 1-mile radius search for water wells. No wells were found within one mile of this Thrifty site.

In August 1986, the first three groundwater monitoring wells were installed on the site to monitor existing USTs. Quarterly groundwater monitoring for the remediation program actually began in late 1991 after the third of four subsurface investigations. Groundwater contamination varied widely from well to well and was increasing with time during the first few years. Highest levels were observed in 1995-1996. These are included in the Site Closure Summary as "before" values, mainly from MW-2 and MW-4. Recorded values were as high as 56,000 ppb for TPH-g, 10,000 ppb for benzene, and 13,000 ppb for MTBE. By August 2001, groundwater contamination was minimized to lower than detection limits, except for MTBE which still measured 7.4 ppb in one well.

Notification

We have notified the responsible party of our intention to recommend closure of this contamination site case. In turn, Thrifty Oil Company has certified that it is the sole landowner for the subject site.

Closure

We would like to recommend closure of the case for soil and groundwater contamination based on the following reasons:

1. The possible sources, one underground waste oil storage tank and three underground fuel storage tanks, have been removed. The fuel tanks were replaced with three double-wall fiberglass tanks;
2. Contaminated soil has been excavated to very very low levels;
3. The site has been adequately characterized, with the lateral and vertical delineation of the extent of soil and groundwater contamination;
4. Quarterly groundwater monitoring indicated general deterioration of contamination levels to "Not detected" levels for TPH-g and BTEX, in August 2001;
5. MTBE in groundwater was reported at 7.4 ppb; and
6. Groundwater is not likely to be used for drinking water.

Attached is a completed "Site Closure Summary" form for this case. I have also reviewed the reports associated with this site on file with the Hayward Fire Department. I believe that the current responsible party, Thrifty Oil Company, has met the intent of the California Regional Water Quality Control Board in the investigation, remediation, and confirmation monitoring of this UST site. I therefore recommend that the CRWQCB grant official closure to this UST case.

The responsible party will be required to properly abandon the monitoring wells on site after case closure is granted.

If you have any questions regarding the details of this case, or if you require copies of reports not in your files, please call me at (510) 583-4925.

Sincerely,

Danilo M. Galang
Environmental Specialist

Encl: Site Closure Summary with Attachments
cc: Hugh Murphy, Hazardous Materials Coordinator

SITE CLOSURE SUMMARY

I. AGENCY INFORMATION

Date: October 15, 2001

Agency Name:	**S.F.B.R.W.Q.C.B.**	Address:	**1515 Clay Street, Suite 1400**
City/State/Zip:	**Oakland, CA 94612**	Phone:	**(510) 622-2433**
Responsible Staff Person:	**Chuck Headlee**	Title:	**Associate Engineering Geologist**

II. SITE INFORMATION

Site Facility Name: **ARCO / THRIFTY OIL COMPANY STATION #055**		
Site Facility Address: **25225 Mission Blvd., Hayward, California 94544**		
RB LUSTIS Case No. **01-1477**	Local or LOP Case No.:	Priority:
URF Filing Date: **8/20/87 & 2/27/92**	SWEEPS No.: **01-003-006149**	

Responsible Parties (include addresses and phone numbers)

Thrifty Oil Company
13539 East Foster Road
Santa Fe Springs, CA 90670
(562) 921-3581 or (562) 923-9876

Tank No.	Size in Gallons	Contents	Closed In-Place/Removed?	Date
1	550	Waste Oil	Removed	09/25/86
2	15,000	Gasoline UL	Removed	06/02/98
3	12,000	Gasoline UL Plus	Removed	06/02/98
4	12,000	Gasoline Super	Removed	06/02/98

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and Type of Release: **Unknown; petroleum hydrocarbons in soil and groundwater**		
Site characterization complete? **Yes**	Date Approved By Oversight Agency:	
Monitoring wells installed? **Yes**	Number: **6**	Proper screened interval? **Yes**
Highest GW Depth Below Ground Surface: **13.09 ft**	Lowest Depth: **28.22 ft**	Flow Direction: **Southwest**
Most Sensitive Current Use: **None known**		
Most Sensitive Potential Use and Probability of Use: **None known**		
Are drinking water wells affected? **None known**	Aquifer Name:	
Is surface water affected? **No**	Nearest/Affected SW Name:	
Off-Site Beneficial Use Impacts (Addresses/Locations): **None known**		
Report(s) on file? **Yes**	Where is report(s) filed? **Hayward Fire Department**	

TREATMENT AND DISPOSAL OF AFFECTED MATERIAL			
Material	**Amount (Include Units)**	**Action (Treatment or Disposal w/Destination)**	**Date**
Tank	**1 waste oil tank**	**Unknown**	**09/25/86**
Tank	**3 tanks**	**Disposal – Erickson, Inc. Richmond CA**	**06/02//98**
Piping	**Lot**	**Disposal – Erickson, Inc. Richmond CA**	**06/02/98**
Soil	**1,053 tons**	**Disposal – TPS Technologies, Richmond, CA**	**01/21/98**
Groundwater	**3,300 gallons**	**Disposal – Crosby & Overton, Long Beach, CA**	**Quarterly**
Barrels	**None**		

MAXIMUM DOCUMENTED POLLUTANT CONCENTRATIONS—BEFORE AND AFTER CLEANUP

POLLUTANT	Soil (ppm)		Water (ppb)		POLLUTANT	Soil (ppm)		Water (ppb)	
	Before	After	Before	After		Before	After	Before	After
TPH (Gas)	**920**	**40**	**56,000**	**< 50**	**Xylenes**	**72**	**0.11**	**12,000**	**<0.26**
TPH (Diesel)	**NA**	**NA**	**NA**	**NA**	**Ethylbenzene**	**2.4**	**0.10**	**3,700**	**<0.18**
Benzene	**0.30**	**0.15**	**10,000**	**< 0.18**	**Oil & Grease**	**219***	**8**		
Toluene	**0.64**	**<0.025**	**1,100**	**<0.14**	**Heavy Metals**				
MTBE	**72**	**<0.25**	**13,000**	**7.4**	**Other**				

Comments (Depth of Remediation, etc.): **"Before" values for soil are from original verification samples from tank basin at the time of removal of three tanks on 06/02/98, except for "Oil & Grease" which was reported when the waste oil tank was removed on 09/25/96. "After" values for soil refer to results of stockpile sampling prior to disposal on the last batch of soil taken from the excavation on 6/26/98, when the tanks were replaced and 1,053 tons of impacted soil have been removed. For "Oil and Grease", the "after" value was taken from the soil sample taken when MW-4 was developed in 1994. MW-4 is in the former location of the waste oil tank removed in 1986.**

"Before" values for groundwater refer to the highest values from quarterly samples obtained from the six monitoring wells prior to the removal of the USTs in 1998. These generally came from MW-2 and MW-4 in 1995-1996.

"After" values for groundwater refer to the latest round of sampling done on 08/29/2001.

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? **Yes**		
Site Management Requirements: **Properly abandon all monitoring wells, in accordance with procedures prescribed by the Alameda County Public Works Department. Intensified use of the property may require risk assessment from any residual soil and groundwater contamination.**		
Monitoring Wells Decommissioned: **No**	Number Decommissioned: **0**	Number Retained: **6**
One monitoring well MW-3, has been "dry" and has not been sampled since the first quarter of 1996.		
List Enforcement Actions Taken: **NONE**		
List Enforcement Actions Rescinded: **NONE**		

V. TECHNICAL REPORTS, CORRESPONDENCE ETC., THAT THIS CLOSURE RECOMMENDATION WAS BASED UPON

Title:	Date:
Request for No Further Action – by Thrifty Oil Company	10/08/2001
Quarterly Status Reports (Groundwater Monitoring) – by Thrifty Oil Company	12/1991 – 10/2001
Underground Storage Tank Removal Report – by Pinnacle Environmental Solutions.	08/13/1998
Remedial Action Plan (Report) – by Blakely Environmental, Inc.	08/26/1994
Phase II Technical Report for Remedial Actions – by Woodward-Clyde Consultants	03/23/1990
Additional Subsurface Assessment – by McLaren Environmental Engineering	04/19/1989
Limited Subsurface Investigation – by Hydrotech Consultants, Inc.	09/21/1987
Site Assessment Investigation Report – Groundwater Technology, Inc.	08/20/1986

VI. ADDITIONAL COMMENTS, DATA, ETC.

PLEASE INCLUDE/ATTACH THE FOLLOWING AS APPROPRIATE:

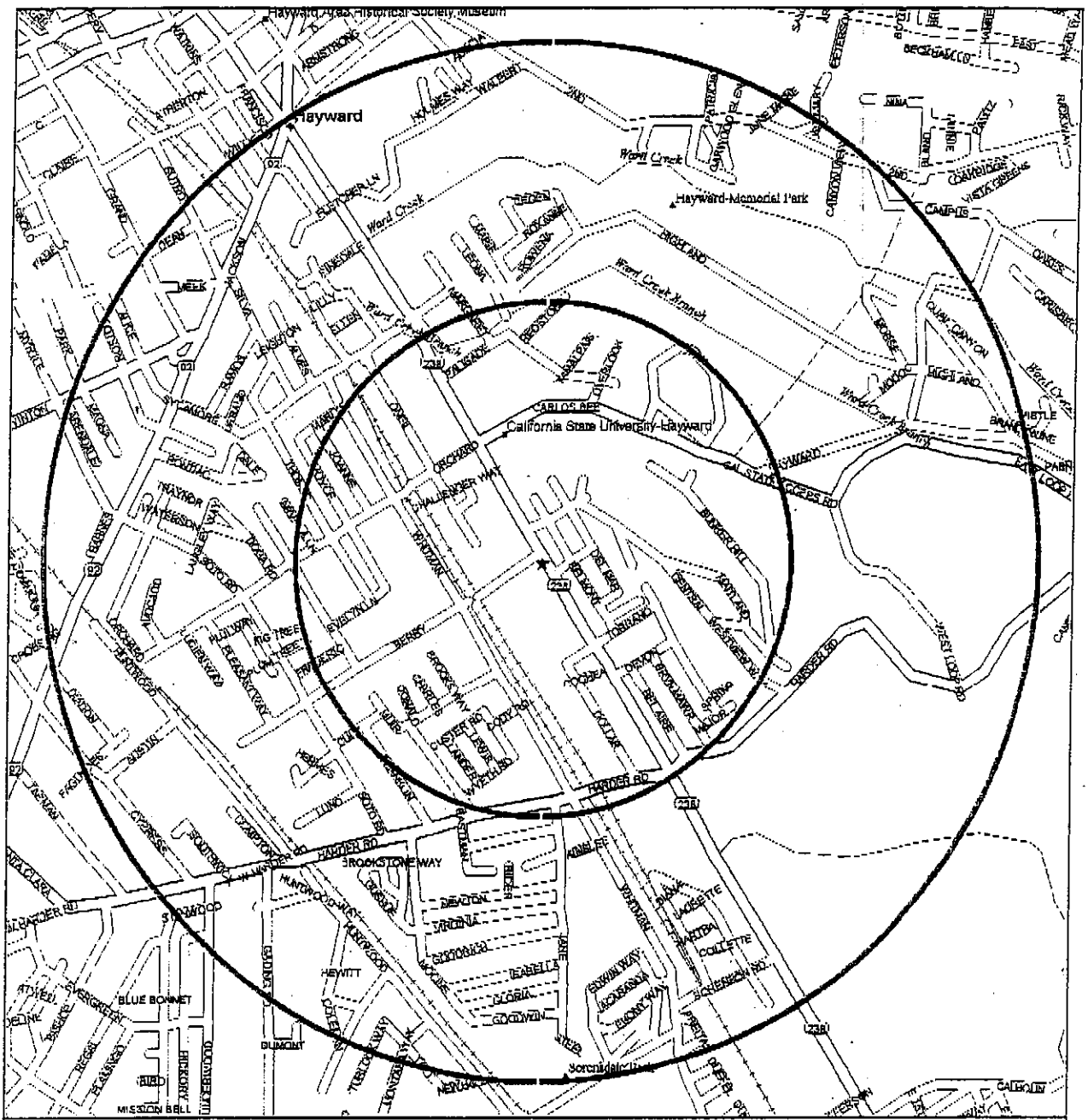
1) SITE MAP INDICATING TANK PIT LOCATION, MONITORING WELL LOCATION, GROUNDWATER GRADIENT, ETC.; AND,

2) SITE COMMENTS WORTHY OF NOTICE (E.G., AREA OF RESIDUAL POLLUTION LEFT IN PLACE, DEED NOTICES ETC.)

Attachments:

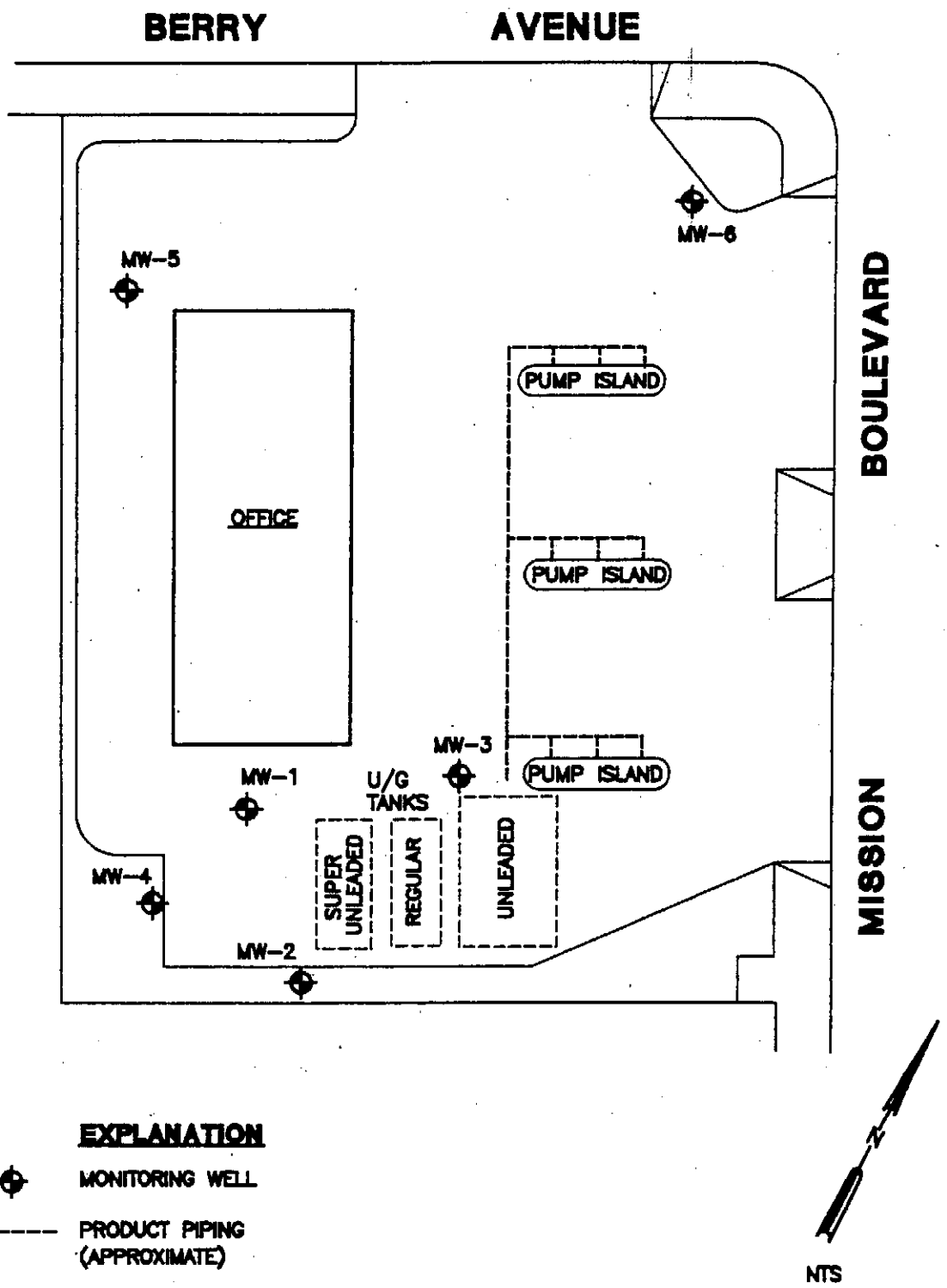
1. Site Plan showing location of facility
2. Site Plan showing locations of removed/present tanks, sampling points, and monitoring wells
3. Analytical results from soil sample from waste oil UST Removal in 1986
4. Analytical results from soil samples from gasoline UST Removal in 1998
5. Analytical results from monitoring wells, 1991 to 2001
6. Groundwater Contour Map, 08/29/01

This document and the related CASE CLOSURE LETTER, shall be retained by the lead agency as part of the official site file.



- ENVIRONMENTAL CONCERNS - HIGH PRIORITY
- ENVIRONMENTAL CONCERNS
- ENVIRONMENTAL CONCERNS - WITH A 'NO FURTHER ACTION' STATUS'
- OPERATING PERMITS ONLY
- WATER WELLS

APPROXIMATE LOCATION OF IDENTIFIED SITES IN THE VICINITY OF SUBJECT SITE
AT 25225 MISSION BLVD, HAYWARD



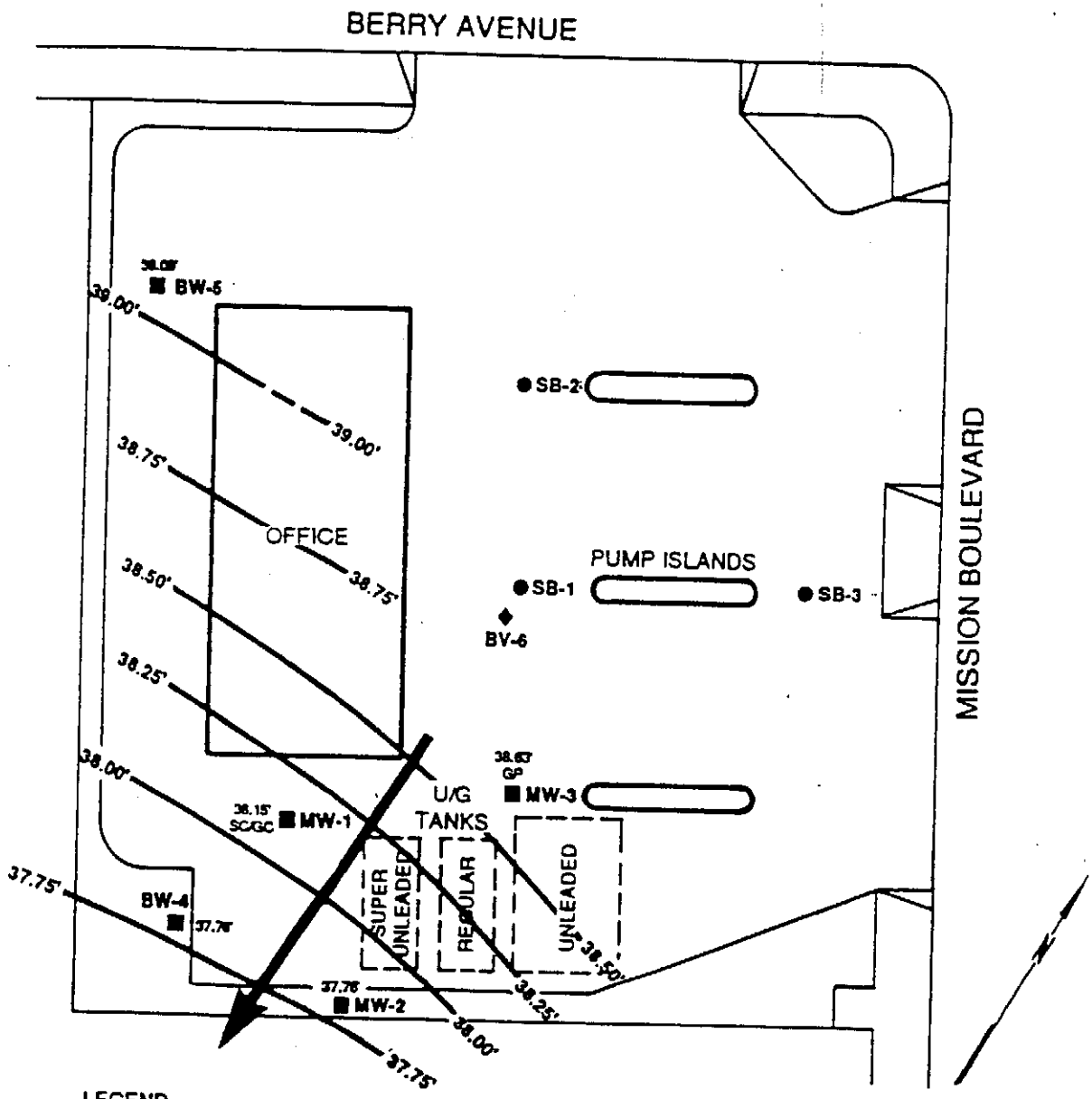
EMCON

DATE 6/30/98
DWN TDB
APP
REV
PROJECT NO. 20805-174.001

FIGURE 1
ARCO 9536/THRIFTY NO. 055
25225 MISSION BLVD.
HAYWARD, CA
SITE PLAN

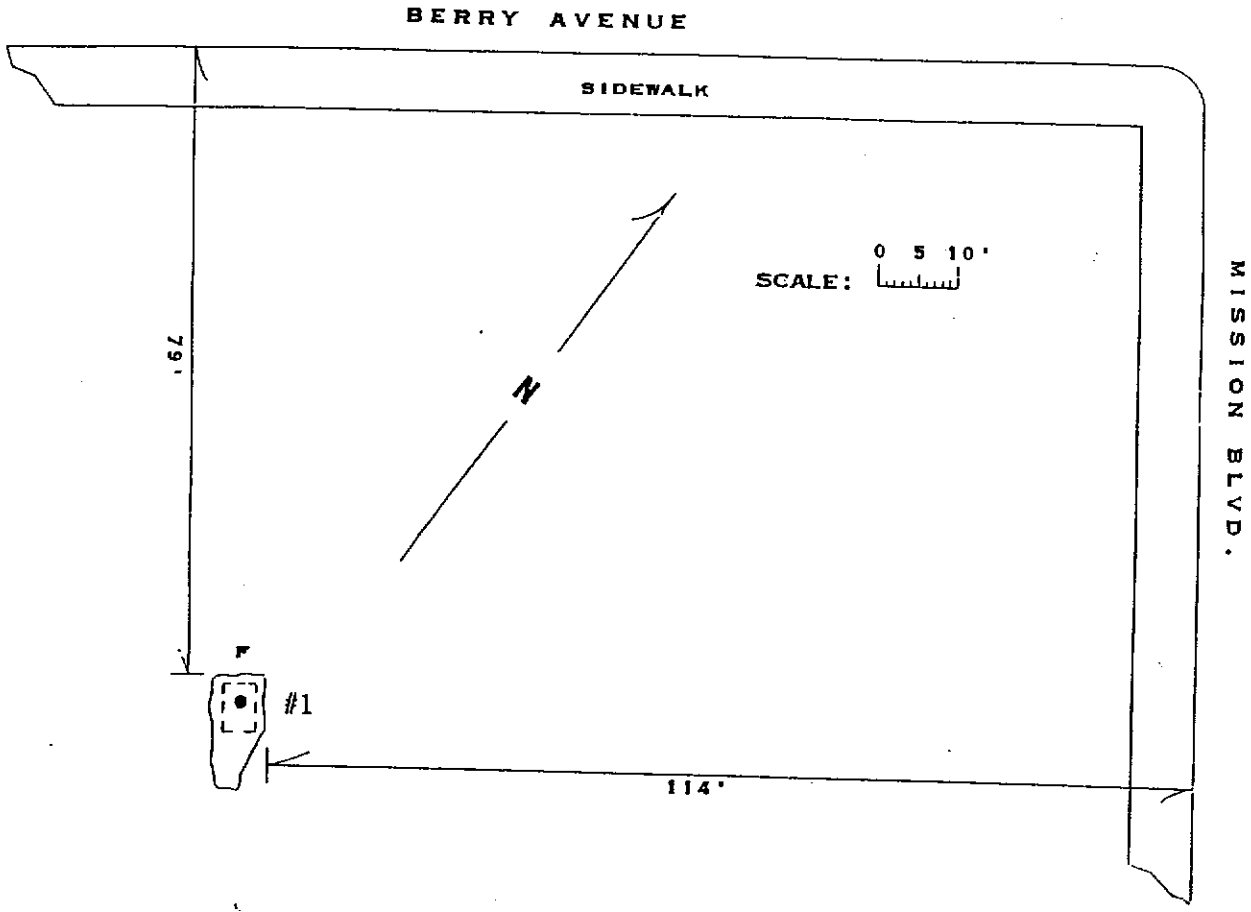
EA-PHOENIX1/CAD: N:\DWG\ARCO\IRVINE\9536\FIG1.dwg Xrefs: BX11P
Scale: 1 = 1.00 DimScale: 1 = 1.00 Date: 7/16/98 Time: 2:09 PM Operator: TBERGSTR

FIGURE 3
GROUNDWATER
CONTOUR MAP
THRIFTY STATION #055
HAYWARD, CA



BLAINE
TECH SERVICES

SAMPLING REPORT 86268M2 9-25-86 ACCUTITE, 25225 MISSION BLVD., HAYWARD, CA



MAP REF: THOMAS BROS.
ALAMEDA COUNTY
P. 58 E-4

LEGEND: F = FILL END

#1 SOIL FROM 8'6"
ANALYSIS FOR WASTE OIL
AT SOIL AND WATER LABORATC
S & W LAB NO. 268B6-8

SAMPLING PERFORMED BY
HELEN MAWHINNEY

DIAGRAM PREPARED BY
TAMMIE STALLINGS

Tammie Stallings

S&W
SOIL AND WATER
LABORATORY
Soil Fertility—Plant Tissue
Pollution and Residue Control
Drinking Water

14072 W. Park Avenue
Boulder Creek, CA 95006

(408) 338-3053

September 30, 1986

Blaine Technical Services
P.O. Box 5745
San Jose, California 95150

Accutite
25225 Mission
Hayward, CA

LABORATORY REPORT

Analysis: Waste Oil

Procedure: EPA Method 3550 Gravimetric

Detection Limit: 20 ppm

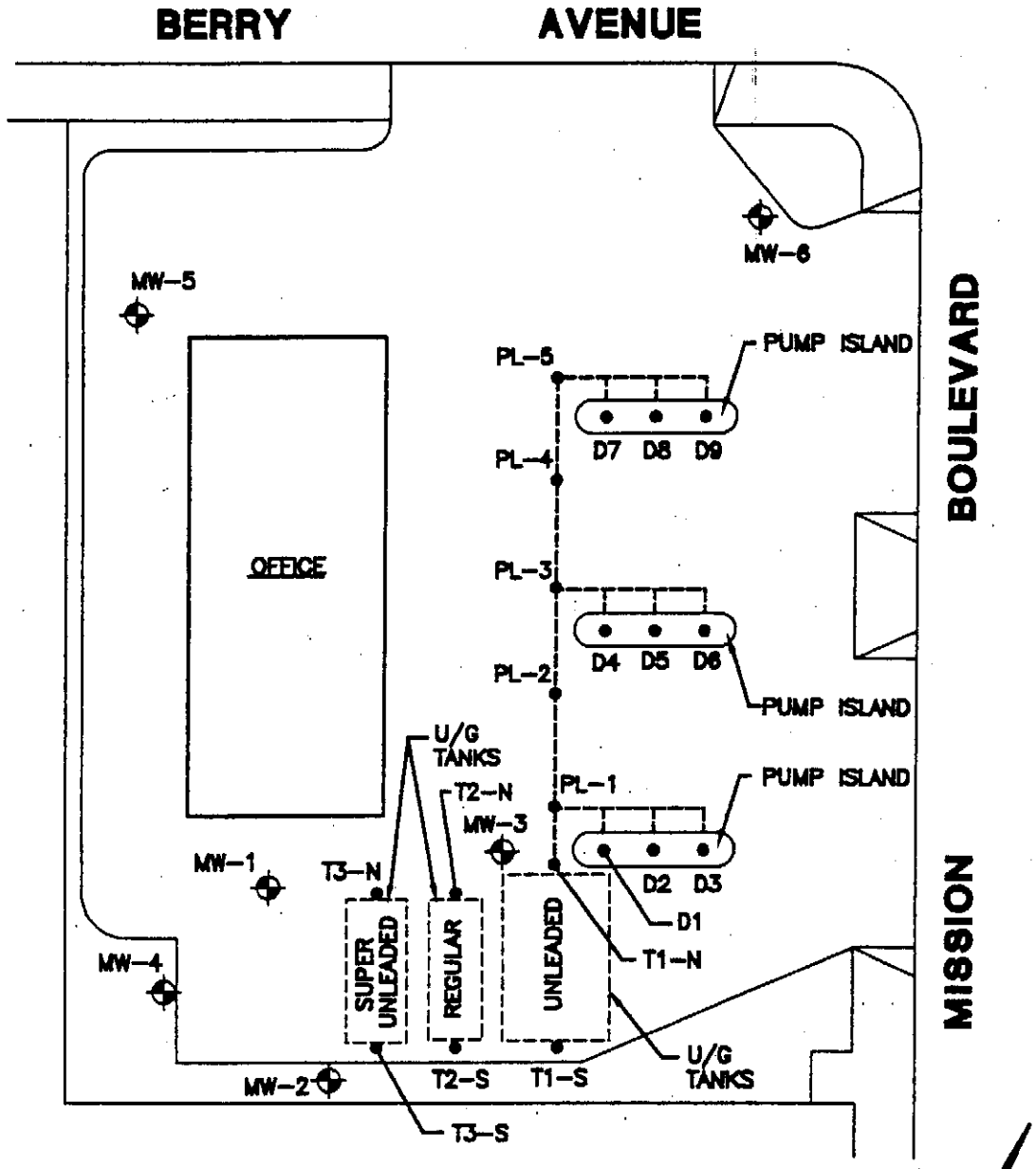
Received: September 25, 1986

Analyzed: September 25, 1986

S&W ID	Client ID	Concentration ppm
268B6-8	86268M2-1 soil, W.O.	219

Analyst

R.A. Lemon



EXPLANATION

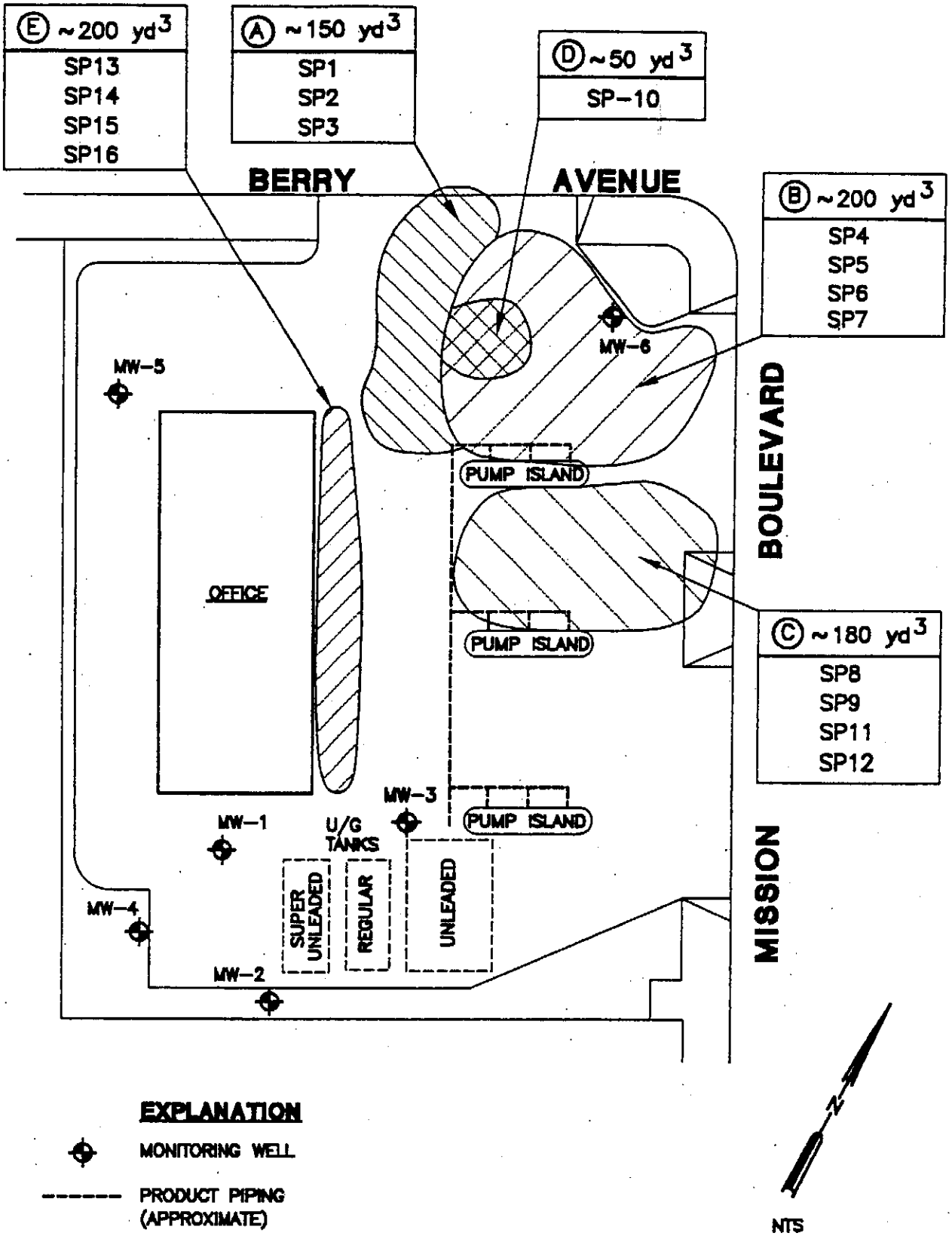
- MONITORING WELL
- PRODUCT PIPING (APPROXIMATE)
- SOIL SAMPLE LOCATION

EMCON

DATE 6/30/98
DWN TDB
APP
REV
PROJECT NO. 20805-174.001

FIGURE 2
ARCO 9536/THRIFTY NO. 055
25225 MISSION BLVD.
HAYWARD, CA
UST AND PIPING SAMPLE LOCATIONS

EA-PHOENIX1/CAD: N:\DWG\ARCO\IRVINE\9536\FIG2.dwg Xrefs: 8X11P
Scale: 1 = 1.00 DimScale: 1 = 1.00 Date: 7/16/98 Time: 1:34 PM Operator: TBERGSTR



EMCON

DATE 6/30/98
DWN TDB
APP
REV
PROJECT NO. 20805-174.001

FIGURE 3
ARCO 9536/THRIFTY NO. 055
25225 MISSION BLVD.
HAYWARD, CA
STOCKPILES A-E

EA-PHOENIX1/CAD: N:\DWG\ARCO\IRVINE\9536\FIG3.dwg Xrefs: BX11P
Scale: 1 = 1.00 DimScale: 1 = 1.00 Date: 7/16/98 Time: 2:09 PM Operator: TBERGSTR

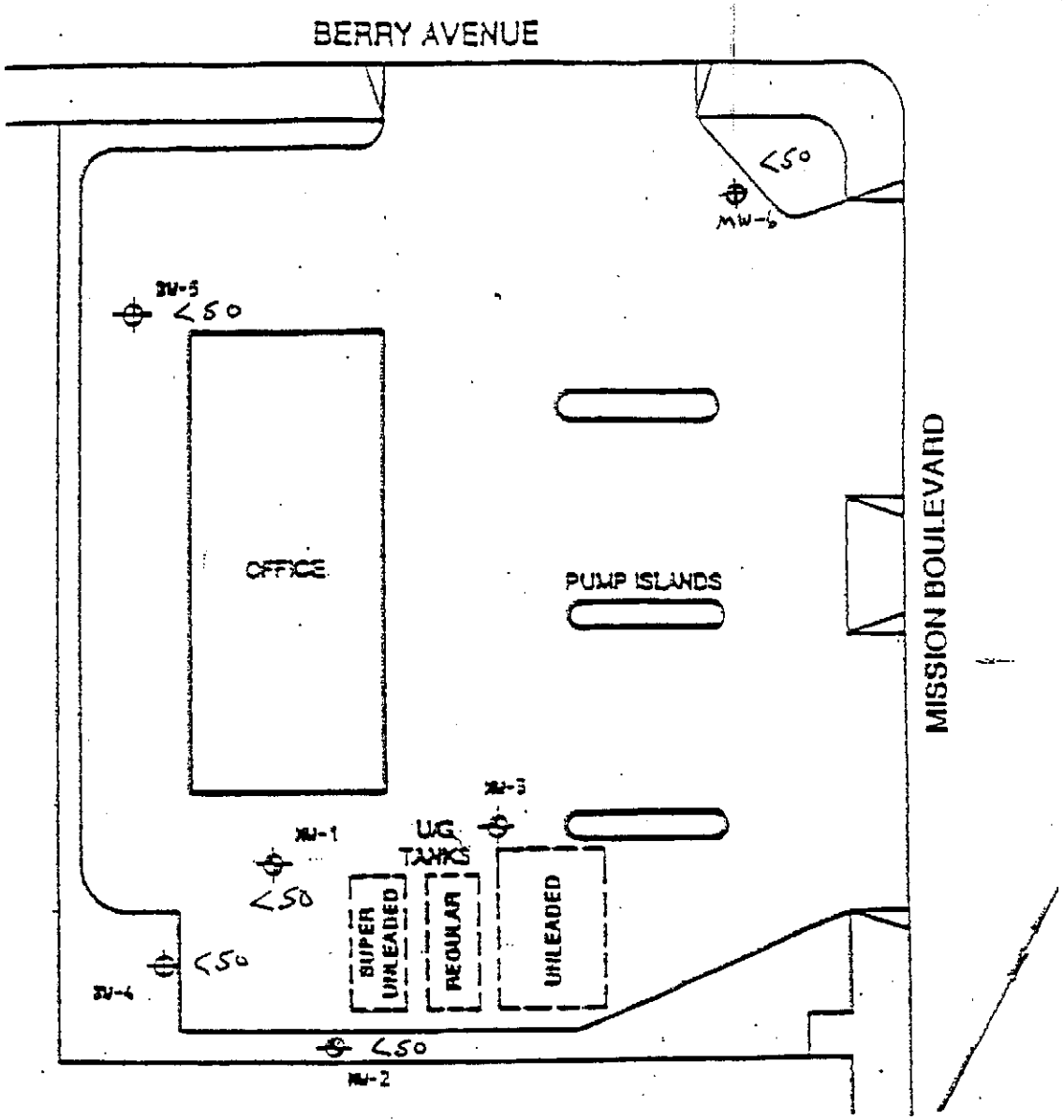
Soil Analytical Results (mg/kg)
ARCO 9536, 25225 Mission Boulevard, Hayward

Sample	Date	TPH-gas	B	T	E	X	MTBE
Samples collected from base of UST excavation:							
T1-N	6/2/98	<2.5	0.096	<0.012	0.024	0.022	4
T1-S	6/2/98	5	0.21	<0.012	0.017	0.027	4.1
T2-N	6/2/98	150	0.30	0.23	1.2	13	2.8
T2-S	6/2/98	300	<0.25	0.33	1.7	3.3	<2.5
T3-N	6/2/98	1	0.038	0.005	0.037	0.069	0.83
T3-S	6/2/98	19	0.056	0.017	0.10	0.10	0.16
Samples collected from base of product line excavation:							
PL-1	6/5/98	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05
PL-2	6/5/98	3	<0.005	0.11	0.029	0.31	<0.05
PL-3	6/5/98	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05
PL-4	6/5/98	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05
PL-5	6/5/98	<1.0	<0.005	0.0052	<0.005	0.010	<0.05
Samples collected from beneath dispensers:							
D-1	6/2/98	960	<0.62	<0.62	2.4	72	72
D-2	6/2/98	31	<0.12	0.09	0.11	0.71	2.5
D-3	6/2/98	86	0.3	<0.05	0.21	0.99	<0.5
D-4	6/2/98	8	0.007	<0.005	0.018	0.27	0.11
D-5	6/2/98	100	<0.062	<0.062	0.14	1.3	1.9
D-6	6/2/98	920	<0.062	0.64	1.1	47	<6.2
D-7	6/2/98	2	<0.005	<0.005	0.006	0.033	<0.05
D-8	6/2/98	<1	<0.005	<0.005	<0.005	0.008	<0.05
D-9	6/2/98	<1	0.005	0.006	<0.005	0.021	<0.05
Stockpile A samples:							
SP-1	6/1/98	49	0.31	3.6	0.93	7.6	17
SP-2	6/1/98	15	<0.025	0.48	0.12	2.20	3.2
SP-3	6/1/98	<1.0	0.012	<0.005	0.011	0.035	0.18
Stockpile B samples:							
SP-4	6/1/98	4.3	<0.005	0.035	0.009	0.34	0.31
SP-5	6/1/98	66	0.18	1.9	0.80	7.1	5.9
SP-6	6/2/98	2	<0.005	<0.005	<0.005	0.12	0.62
SP-7	6/2/98	4	<0.005	<0.005	<0.005	0.40	1.1
Stockpile C samples:							
SP-8	6/3/98	160	0.46	4.0	1.5	13	5.4
SP-9	6/3/98	120	<0.05	2.6	0.90	11	4.9
SP-11	6/3/98	120	0.06	2.0	0.89	7.3	1.4
SP-12	6/3/98	3	<0.005	<0.005	0.01	0.087	0.089
Stockpile D samples:							
SP-10	6/3/98	8	0.11	0.13	0.12	0.50	0.36

Soil Analytical Results (mg/kg)
ARCO 9536, 25225 Mission Boulevard, Hayward

Sample	Date	TPH-gas	B	T	E	X	MTBE
Stockpile E samples:							
SP-13	6/5/98	2	<0.005	0.007	<0.005	0.02	0.10
SP-14	6/5/98	1	<0.005	<0.005	<0.005	0.01	0.35
SP-15	6/5/98	2	<0.005	<0.005	<0.005	0.008	0.072
SP-16	6/5/98	8	<0.005	0.36	0.15	1.2	0.15
Stockpile F samples:							
SP-17	6/26/98	40	0.15	<0.025	0.10	0.11	<0.25

Notes:
mg/kg = milligrams per kilogram
TPH-gas = total petroleum hydrocarbons as gasoline (EPA Method 8015 modified)
B, T, E, X = benzene, toluene, ethylbenzene, total xylenes (EPA Method 8020)
MTBE = methyl tertiary butyl ether (EPA Method 8020)



TPH ISOCONCENTRATION MAP ug/L

Thrifty Oil Co. #055

25225 Mission Boulevard

HAYWARD, CA 94541

SCALE

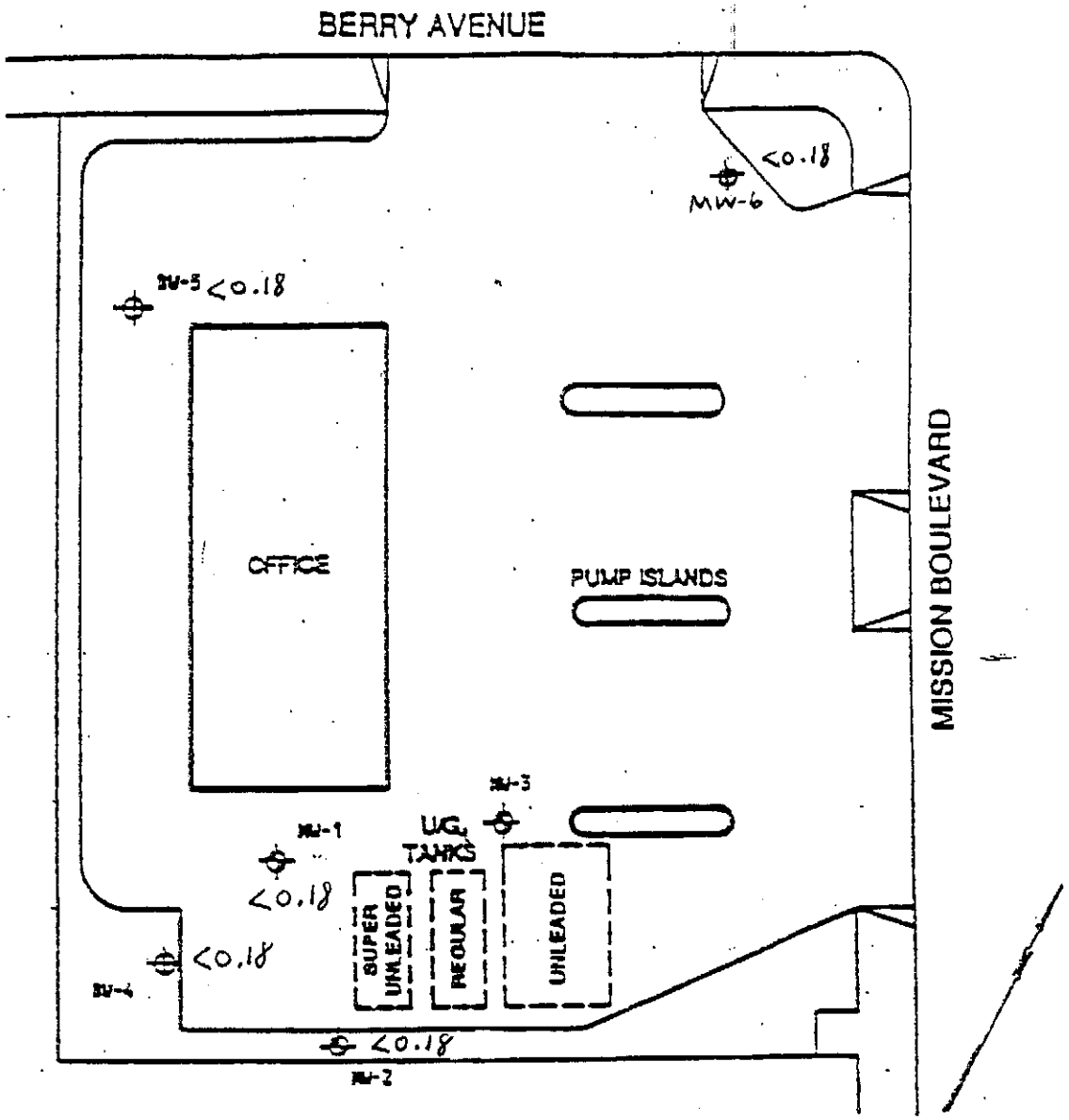
0 5 25

FEET

⊕ - Groundwater Monitoring Well, GTI, 1986.

⊕ - Groundwater Monitoring Well, McLaren, 1989.

FIGURE 2



8/29/91

BENZENE ISOCONCENTRATION MAP ug/L

Thrifty Oil Co. #055

25225 Mission Boulevard

HAYWARD, CA 94541

SCALE

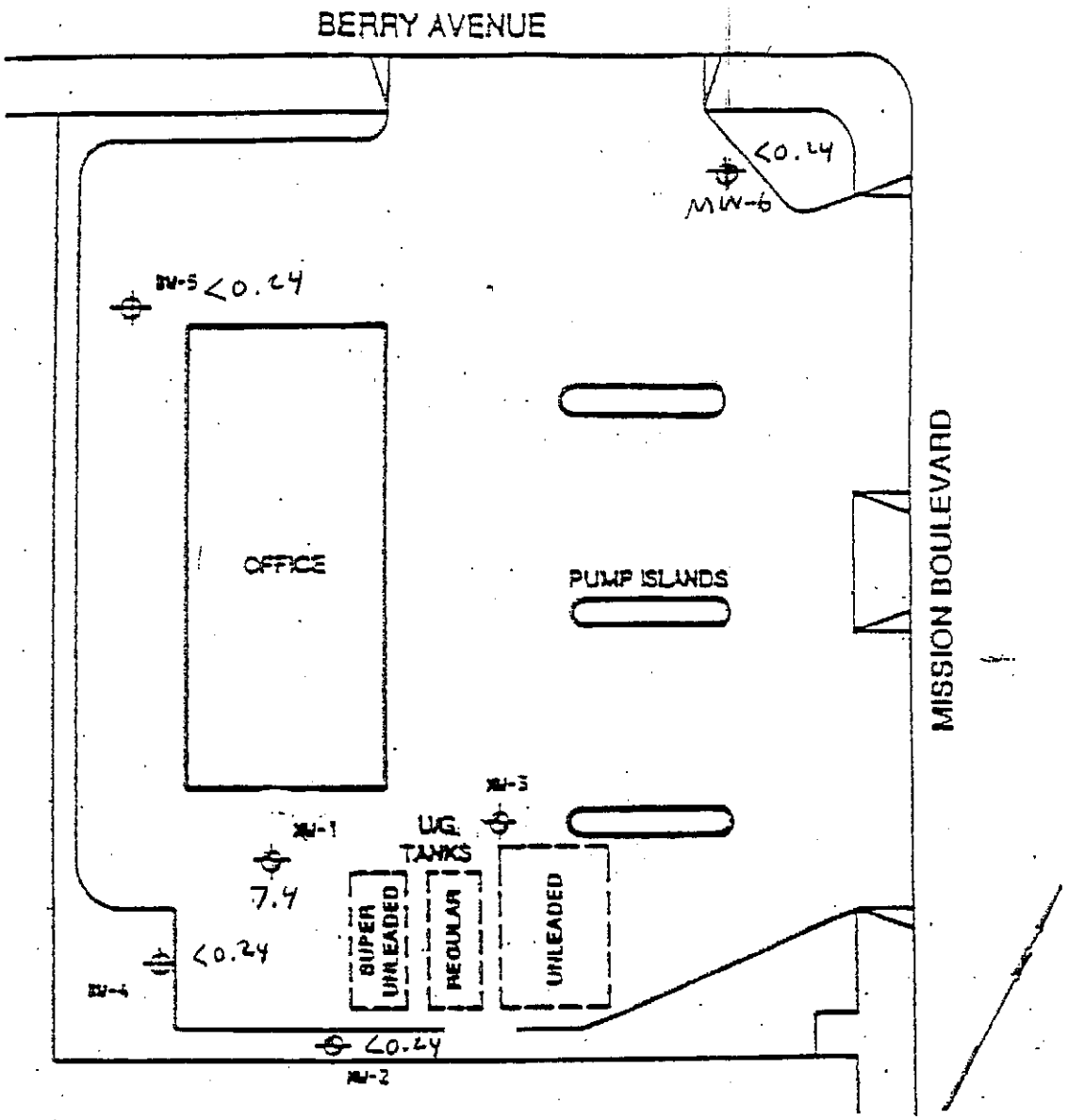
0 5 25

FEET

⊕ - Groundwater Monitoring Well, GTI, 1986.

⊕ - Groundwater Monitoring Well, McLaren, 1989.

FIGURE 3



8/29/91

MTBE ISOCONCENTRATION MAP ug/L

Thrifty Oil Co. #055

25225 Mission Boulevard

HAYWARD, CA 94541

SCALE

0 5 25

FEET

⊕ - Groundwater Monitoring Well, GTI, 1986.

⊕ - Groundwater Monitoring Well, McLaren, 1989.

FIGURE 4

TABLE 1
GROUNDWATER DATA
THRIFTY OIL STATION #055, HAYWARD, CA.

DATE SAMPLED	TPH (ppb)	BENZENE (ppb)	TOLUENE (ppb)	ETHYL-BENZENE (ppb)	XYLENES (ppb)	TOTAL VOC (ppb)	DEPTH TO GROUNDWATER (feet)	DEPTH TO PRODUCT (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
MONITORING WELL #MW1											
01/15/91	460	110	11	ND	19	-	-	-	-	-	-
04/17/91	ND	ND	ND	ND	ND	-	-	-	-	-	-
07/17/91	400	23	15	20	84	-	-	-	-	-	-
11/13/91	600	180	11	3.0	25	-	-	-	-	-	-
02/27/91	-	-	-	-	-	-	-	-	-	-	-
05/06/92	-	-	-	-	-	-	-	-	-	-	-
08/21/92	-	-	-	-	-	-	-	-	-	-	-
11/05/92	-	-	-	-	-	-	-	-	-	-	-
02/03/93	-	-	-	-	-	-	-	-	-	-	-
05/13/93	-	-	-	-	-	-	-	-	-	-	-
08/30/93	35,000	4,700	1,500	1,300	3,900	-	-	-	-	-	-
11/22/93	-	-	-	-	-	-	-	-	-	-	-
02/22/94	-	-	-	-	-	-	-	-	-	-	-
05/24/94	-	-	-	-	-	-	-	-	-	-	-
08/18/94	-	-	-	-	-	-	-	-	-	-	-
08/29/95	-	-	-	-	-	-	-	-	-	-	-
11/28/95	2,500	570	68	170	400	-	-	-	-	-	-
03/27/96	5,300	760	11	210	370	-	14.20	NP	0.00	67.72	53.52
06/26/96	32,000	5,900	470	1,800	3,900	-	18.24	NP	0.00	67.72	49.48
09/18/96	ND	ND	ND	ND	ND	47	16.12	NP	0.00	67.72	51.60
12/17/96	7,900	910	18	250	420	300	21.15	NP	0.00	67.72	46.57
03/25/97	74	0.76	9.0	0.81	4.0	200	26.32	NP	0.00	67.72	41.40
06/17/97	590	<0.3	<0.3	<0.3	<0.5	1,700	24.83	NP	0.00	67.72	42.89
09/17/97	580	<0.3	<0.3	<0.3	<0.5	1,300	27.90	NP	0.00	67.72	39.82
12/03/97	6,000	1,100	54	200	530	680	22.10	NP	0.00	67.72	45.62
03/04/98	2,300	610	28	4.7	210	1,200	21.20	NP	0.00	67.72	46.52
05/26/98	460	1.6	0.4	<3	2.6	630	21.15	NP	0.00	67.72	46.57
09/22/98	380	<0.3	<0.3	<0.3	<0.5	810	25.70	NP	0.00	67.72	42.02
12/02/98	390	<0.3	<0.3	<0.3	<0.5	380	23.18	NP	0.00	67.72	44.54
02/25/99	230	1.3	<0.3	<0.3	0.60	* 260 / 260	18.55	NP	0.00	67.72	49.17
06/23/99	<50	1.2	<0.3	<0.3	<0.5	<5	21.60	NP	0.00	67.72	46.12
08/25/99	<50	<0.3	<0.3	<0.3	<0.5	<5	21.62	NP	0.00	67.72	46.10
12/08/99	<50	<0.3	0.37	<0.3	<0.5	<5	17.01	NP	0.00	67.72	50.71
03/22/00	<50	<0.25	<0.25	<0.25	<0.5	<5 / <0.5	21.60	NP	0.00	67.72	46.12

TABLE 1
GROUNDWATER DATA
THRIFTY OIL STATION #055, HAYWARD, CA.

SAMPLE DATE	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYLBENZ (ug/L)	XYLENE (ug/L)	MTBE (ug/L)	DEPTH TO GROUNDWATER (feet)	FREE PRODUCT (feet)	PRODUCT THICKNESS (feet)	GW ELEVATION (feet)	TOTAL DEPTH (feet)
06/22/00	<50	<0.3	<0.3	<0.3	<0.6	<5	23.15	NP	0.00	67.72	44.57
09/20/00	<50	<0.18	<0.14	<0.18	<0.26	<0.24	23.14	NP	0.00	67.72	44.58
12/14/00	<50	<0.18	<0.14	<0.18	<0.26	<0.24	23.15	NP	0.00	67.72	44.57
03/01/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	18.55	NP	0.00	67.72	49.17
06/28/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	23.15	NP	0.00	67.72	44.57
08/29/01	<50	<0.18	<0.14	<0.18	<0.26	*8 / 7.4	21.61	NP	0.00	67.72	46.11
MONITORING WELL #MW2											
01/15/91	90	ND	ND	ND	ND	-	-	-	-	-	-
04/17/91	2,000	23	110	48	220	-	-	-	-	-	-
07/17/91	5,200	3.8	43	30	230	-	-	-	-	-	-
11/13/91	ND	48	8.0	ND	ND	-	-	-	-	-	-
02/27/92	-	-	-	-	-	-	-	-	-	-	-
05/06/92	-	-	-	-	-	-	-	-	-	-	-
08/21/92	-	-	-	-	-	-	-	-	-	-	-
11/05/92	-	-	-	-	-	-	-	-	-	-	-
02/03/93	-	-	-	-	-	-	-	-	-	-	-
05/13/93	-	-	-	-	-	-	-	-	-	-	-
08/30/93	-	-	-	-	-	-	-	-	-	-	-
11/22/93	-	-	-	-	-	-	-	-	-	-	-
02/22/94	-	-	-	-	-	-	-	-	-	-	-
05/24/94	-	-	-	-	-	-	-	-	-	-	-
08/18/94	-	-	-	-	-	-	-	-	-	-	-
08/29/95	36,000	5,100	450	700	4,800	-	-	-	-	-	-
11/28/95	14,000	2,700	140	680	1,300	-	-	-	-	-	-
03/27/95	47,000	8,000	390	2,600	10,000	-	14.50	NP	0.00	67.51	53.01
06/26/96	46,000	10,000	300	3,700	12,000	-	18.32	NP	0.00	67.51	49.19
09/18/96	2,000	6.2	ND	ND	94	300	16.26	NP	0.00	67.51	51.25
12/17/96	13,000	3,100	<75	<75	2,600	13,000	21.55	NP	0.00	67.51	45.96
03/25/97	390	3.7	16	1.3	22	700	25.24	NP	0.00	67.51	42.27
06/17/97	380	<0.3	<0.3	<0.3	<0.5	1,200	25.30	NP	0.00	67.51	42.21
09/16/97	460	<0.3	<0.3	<0.3	<0.5	950	25.25	NP	0.00	67.51	42.26
12/03/97	5,000	850	17	<0.3	740	1,000	22.50	NP	0.00	67.51	45.01
03/04/98	450	<0.3	<0.3	<0.3	<0.5	1,500	22.45	NP	0.00	67.51	45.06

TABLE 1
GROUNDWATER DATA
THRIFTY OIL STATION #055, HAYWARD, CA.

DATE SAMPLED	WATER QUALITY PARAMETERS										
	TPH (GRO) (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYLBENZ (ug/L)	XYLENES (ug/L)	MTBE (ug/L)	GROUNDWATER ELEVATION (ft)	PRODUCT THICKNESS (ft)	RECOVERED PRODUCT (gal)	CASING ELEVATION (ft)	PRODUCT CORRECTION (ft)
05/26/98	<50	<0.3	<0.3	<0.3	<0.5	780	22.45	NP	0.00	67.51	45.06
09/22/98	320	<0.3	<0.3	<0.3	<0.5	780	24.85	NP	0.00	67.51	42.66
12/02/98	360	<0.3	<0.3	<0.3	<0.5	470	21.80	NP	0.00	67.51	45.71
02/25/99	29,000	2,600	130	2,000	4,000	* 6,100 / 5,000	18.75	NP	0.00	67.51	48.76
06/23/99	<50	<0.3	<0.3	<0.3	<0.5	<5	21.80	NP	0.00	67.51	45.71
08/25/99	7,700	1,100	19	<3	270	3,100	20.89	NP	0.00	67.51	46.62
12/08/99	1,200	<3	4.5	<3	<5	2,500	17.20	NP	0.00	67.51	50.31
03/22/00	2,730	<0.25	<0.25	<0.25	<0.5	*2,570/2,400	21.79	NP	0.00	67.51	45.72
06/22/00	<100	<0.6	<0.6	<0.6	<1.2	*2,110 / 1,910	23.32	NP	0.00	67.51	44.19
09/20/00	<50	<0.18	<0.14	<0.18	<0.26	*2,030 / 2,320	21.78	NP	0.00	67.51	45.73
12/14/00	<50	<0.18	<0.14	<0.18	<0.26	<0.24	23.32	NP	0.00	67.51	44.19
03/01/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	20.25	NP	0.00	67.51	47.26
06/28/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	23.32	NP	0.00	67.51	44.19
08/29/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	21.78	NP	0.00	67.51	45.73
MONITORING WELL #MW-3											
01/15/91	2,600	480	17	2.7	35	-	-	-	-	-	-
04/17/91	870	66	32	8.7	59	-	-	-	-	-	-
07/17/91	500	46	8.0	62	38	-	-	-	-	-	-
11/13/91	ND	52	8.0	1.0	16	-	-	-	-	-	-
02/27/92	-	-	-	-	-	-	-	-	-	-	-
05/06/92	-	-	-	-	-	-	DRY	-	-	-	-
08/21/92	-	-	-	-	-	-	DRY	-	-	-	-
11/05/92	-	-	-	-	-	-	DRY	-	-	-	-
02/03/93	-	-	-	-	-	-	DRY	-	-	-	-
05/13/93	-	-	-	-	-	-	DRY	-	-	-	-
08/30/93	-	-	-	-	-	-	DRY	-	-	-	-
11/22/93	-	-	-	-	-	-	DRY	-	-	-	-
02/22/94	-	-	-	-	-	-	DRY	-	-	-	-
05/24/94	-	-	-	-	-	-	DRY	-	-	-	-
08/18/94	-	-	-	-	-	-	DRY	-	-	-	-
08/29/95	-	-	-	-	-	-	DRY	-	-	-	-
11/28/95	-	-	-	-	-	-	DRY	-	-	-	-
03/27/96	23,000	4,400	600	1,600	3,400	-	14.12	-	-	-	-

TABLE 1
GROUNDWATER DATA
THRIFTY OIL STATION #055, HAYWARD, CA.

DATE SAMPLED	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	Ethyl Benzene (ug/L)	XYLENE (ug/L)	MTBE (ug/L)	DEPTH TO GROUNDWATER (feet)	DEPTH TO PRODUCT (feet)	PRODUCT THICKNESS (feet)	CASING ELEV. (feet)	GROUNDWATER ELEV. (feet)
06/26/96	-	-	-	-	-	-	DRY	-	-	-	-
09/18/96	-	-	-	-	-	-	DRY	-	-	-	-
12/17/96	-	-	-	-	-	-	DRY	-	-	-	-
03/25/97	-	-	-	-	-	-	DRY	-	-	-	-
06/17/97	-	-	-	-	-	-	DRY	-	-	-	-
09/16/97	-	-	-	-	-	-	DRY	-	-	-	-
12/03/97	-	-	-	-	-	-	DRY	-	-	-	-
03/04/98	-	-	-	-	-	-	DRY	-	-	-	-
05/26/98	-	-	-	-	-	-	DRY	-	-	-	-
09/22/98	-	-	-	-	-	-	DRY	-	-	-	-
12/02/98	-	-	-	-	-	-	DRY	-	-	-	-
02/25/99	-	-	-	-	-	-	DRY	-	-	-	-
06/23/99	-	-	-	-	-	-	DRY	-	-	-	-
08/25/99	-	-	-	-	-	-	DRY	-	-	-	-
12/08/99	-	-	-	-	-	-	DRY	-	-	-	-
03/22/00	-	-	-	-	-	-	-	-	-	-	-
06/22/00	-	-	-	-	-	-	DRY	-	-	-	-
09/20/00	-	-	-	-	-	-	23.40	-	-	-	-
12/14/00	-	-	-	-	-	-	DRY	-	-	-	-
03/01/01	-	-	-	-	-	-	DRY	-	-	-	-
06/28/01	-	-	-	-	-	-	DRY	-	-	-	-
08/29/01	-	-	-	-	-	-	21.30	NP	0.00	-	-
MONITORING WELL #BW-1											
01/15/91	460	110	11	ND	19	-	-	-	-	-	-
04/17/91	ND	ND	ND	ND	ND	-	-	-	-	-	-
07/17/91	-	-	-	-	-	-	-	-	-	-	-
09/08/91	ND	ND	ND	ND	ND	-	-	-	-	-	-
11/13/91	ND	ND	ND	ND	ND	-	-	-	-	-	-
02/27/92	5,500	4,200	120	48	430	-	-	-	-	-	-
05/06/92	1,400	2,800	70	300	290	-	-	-	-	-	-
08/21/92	400	5.4	3.4	0.7	0.8	-	-	-	-	-	-
11/05/92	850	740	28	37	39	-	-	-	-	-	-
02/03/93	6,000	2,700	120	<5.0	420	-	-	-	-	-	-

TABLE 1
GROUNDWATER DATA
THRIFTY OIL STATION #055, HAYWARD, CA.

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO GROUNDWATER (feet)	DEPTH TO PRODUCT (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH(g) (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	Ethylbenzene (ug/L)	XYLENES (ug/L)	MTBE (ug/L)					
05/13/93	28,000	8,400	990	220	3,300	-	-	-	-	-	-
08/30/93	42,000	8,200	1,100	2,000	4,200	-	-	-	-	-	-
11/22/93	35,000	5,500	96	990	910	-	-	-	-	-	-
02/22/94	5,400	1,400	5.7	190	140	-	-	-	-	-	-
05/24/94	13,000	680	2.1	230	150	-	-	-	-	-	-
08/18/94	5,600	810	3.9	ND	880	-	-	-	-	-	-
08/29/95	56,000	8,900	280	1,900	5,100	-	-	-	-	-	-
11/28/95	52,000	9,700	150	2,600	5,400	-	-	-	-	-	-
03/27/96	32,000	8,200	80	2,500	5,100	-	14.70	NP	0.00	67.92	53.22
06/26/96	42,000	9,800	90	3,300	6,500	-	17.46	NP	0.00	67.92	50.46
09/18/96	220	ND	ND	ND	ND	350	17.56	NP	0.00	67.92	50.36
12/17/96	28,000	5,400	35	1,600	2,900	2,500	21.50	NP	0.00	67.92	46.42
03/27/97	4,900	1,900	92	15	590	900	26.29	NP	0.00	67.92	41.63
06/17/97	<50	<0.3	<0.3	<0.3	<0.5	<20	25.94	NP	0.00	67.92	41.98
09/16/97	450	<0.3	0.3	<0.3	<0.5	860	26.30	NP	0.00	67.92	41.62
12/03/97	7,300	1,300	4.5	430	390	780	22.50	NP	0.00	67.92	45.42
03/04/98	480	1.6	0.45	<0.3	<0.5	1,200	22.45	NP	0.00	67.92	45.47
05/26/98	300	<0.3	<0.3	<0.3	<0.5	750	22.40	NP	0.00	67.92	45.52
09/22/98	<50	<0.3	<0.3	<0.3	<0.5	<5	25.35	NP	0.00	67.92	42.57
12/02/98	220	<0.3	<0.3	<0.3	<0.5	<5	24.95	NP	0.00	67.92	42.97
02/25/99	290	<0.3	<0.3	<0.3	<0.5	* 440 / 520	20.38	NP	0.00	67.92	47.54
06/23/99	200	0.66	<0.3	<0.3	<0.5	490	21.50	NP	0.00	67.92	46.42
08/25/99	180	<0.3	<0.3	<0.3	0.52	270	24.52	NP	0.00	67.92	43.40
12/08/99	120	<0.3	0.42	<0.3	<0.5	230	17.40	NP	0.00	67.92	50.52
03/22/00	258	<0.5	<0.5	<0.5	<1	*252 / 360	19.97	NP	0.00	67.92	47.95
06/22/00	<50	<0.3	<0.3	<0.3	<0.6	*205 / 226	21.13	NP	0.00	67.92	46.79
09/20/00	<50	<0.18	<0.14	<0.18	<0.26	*102 / 130	21.50	NP	0.00	67.92	46.42
12/14/00	<50	<0.18	<0.14	<0.18	<0.26	<0.24	25.34	NP	0.00	67.92	42.58
03/01/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	24.56	NP	0.00	67.92	43.36
06/28/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	24.57	NP	0.00	67.92	43.35
08/29/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	23.80	NP	0.00	67.92	44.12

TABLE 1
GROUNDWATER DATA
THRIFTY OIL STATION #055, HAYWARD, CA.

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO GROUNDWATER (feet)	DEPTH TO PRODUCT (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYLBENZENE (ug/L)	XYLENES (ug/L)	MTBE (ug/L)					
MONITORING WELL #BW-5											
01/15/91	90	ND	ND	ND	ND	-	-	-	-	-	-
04/17/91	2,000	23	110	48	220	-	-	-	-	-	-
07/17/91	-	-	-	-	-	-	-	-	-	-	-
09/08/91	ND	ND	ND	ND	ND	-	-	-	-	-	-
11/13/91	1,700	118	8.0	ND	1.0	-	-	-	-	-	-
02/27/92	ND	2.2	ND	ND	ND	-	-	-	-	-	-
05/06/92	ND	2.0	ND	ND	ND	-	-	-	-	-	-
08/21/92	ND	ND	ND	ND	ND	-	-	-	-	-	-
11/05/92	ND	ND	ND	ND	ND	-	-	-	-	-	-
02/03/93	ND	ND	ND	ND	ND	-	-	-	-	-	-
05/13/93	200	ND	ND	ND	1.6	-	-	-	-	-	-
08/30/93	660	39	1.4	4.7	7.5	-	-	-	-	-	-
11/22/93	370	6.7	1.6	1.5	3.3	-	-	-	-	-	-
02/22/94	350	20	ND	ND	4.7	-	-	-	-	-	-
05/24/94	350	4.2	ND	1.2	ND	-	-	-	-	-	-
08/18/94	ND	ND	ND	ND	ND	-	-	-	-	-	-
08/29/95	ND	ND	ND	ND	4.1	-	-	-	-	-	-
11/28/95	ND	1.0	ND	ND	ND	-	-	-	-	-	-
03/27/96	ND	ND	ND	ND	ND	-	13.09	NP	0.00	68.08	54.99
06/26/96	ND	ND	ND	ND	ND	-	16.23	NP	0.00	68.08	51.85
09/18/96	ND	ND	ND	ND	ND	ND	15.42	NP	0.00	68.08	52.66
12/17/96	<50	ND	ND	ND	ND	ND	19.90	NP	0.00	68.08	48.18
03/25/97	<50	<0.3	<0.3	<0.3	<0.5	<20	23.63	NP	0.00	68.08	44.45
06/17/97	<50	<0.3	<0.3	<0.3	<0.5	<20	24.05	NP	0.00	68.08	44.03
09/16/97	<50	<0.3	<0.3	<0.3	<0.5	<20	24.78	NP	0.00	68.08	43.30
12/03/97	78	0.39	<0.3	<0.3	8.6	59	22.90	NP	0.00	68.08	45.18
03/04/98	<50	<0.3	<0.3	<0.3	<0.5	95	22.86	NP	0.00	68.08	45.22
05/26/98	<50	<0.3	1.1	<0.3	1.1	33	22.80	NP	0.00	68.08	45.28
09/22/98	<50	<0.3	<0.3	<0.3	<0.5	26	23.70	NP	0.00	68.08	44.38
12/02/98	140	<0.3	<0.3	<0.3	<0.5	<5	22.90	NP	0.00	68.08	45.18
02/25/99	240	<0.3	<0.3	<0.3	0.75	* 330 / 360	20.64	NP	0.00	68.08	47.44
06/23/99	-	-	-	-	-	-	-	-	-	-	-
08/25/99	-	-	-	-	-	-	-	-	-	-	-
12/08/99	-	-	-	-	-	-	-	-	-	-	-

TABLE 1
GROUNDWATER DATA
THRIFTY OIL STATION #055, HAYWARD, CA.

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO GROUNDWATER (feet)	GROUNDWATER ELEVATION (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH-G (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYLBENZENE (ug/L)	XYLENES (ug/L)	TPH-D (ug/L)					
03/22/00	-	-	-	-	-	-	-	-	-	-	-
06/22/00	-	-	-	-	-	-	-	-	-	-	-
09/20/00	-	-	-	-	-	-	-	-	-	-	-
12/14/00	<50	<0.18	<0.14	<0.18	<0.26	<0.24	25.15	NP	0.00	68.08	42.93
03/01/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	22.09	NP	0.00	68.08	45.99
06/28/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	22.85	NP	0.00	68.08	45.23
08/29/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	22.45	NP	0.00	68.08	45.63
MONITORING WELL #MW-2											
09/21/95	160	2.1	ND	ND	ND	-	-	-	-	-	-
11/28/95	-	-	-	-	-	-	-	-	-	-	-
03/27/96	-	-	-	-	-	-	-	-	-	-	-
06/26/96	-	-	-	-	-	-	-	-	-	-	-
09/18/96	-	-	-	-	-	-	-	-	-	-	-
12/17/96	92	ND	ND	ND	ND	ND	20.50	NP	0.00	-	-
03/27/97	<50	<0.3	<0.3	<0.3	<0.5	<20	28.22	NP	0.00	-	-
06/17/97	<50	<0.3	<0.3	<0.3	<0.5	<20	28.25	NP	0.00	-	-
09/16/97	<50	<0.3	<0.3	<0.3	<0.5	<20	26.66	NP	0.00	-	-
12/03/97	<50	<0.3	<0.3	<0.3	0.94	<20	21.10	NP	0.00	-	-
03/04/98	<50	<0.3	<0.3	<0.3	<0.5	<20	21.15	NP	0.00	-	-
05/26/98	<50	<0.3	<0.3	<0.3	<0.5	<5	21.10	NP	0.00	-	-
09/22/98	<50	<0.3	<0.3	<0.3	<0.5	<5	23.65	NP	0.00	-	-
12/02/98	<50	<0.3	<0.3	<0.3	<0.5	<5	20.60	NP	0.00	-	-
02/25/99	<50	<0.3	<0.3	<0.3	<0.5	<5	19.50	NP	0.00	-	-
06/23/99	<50	<0.3	<0.3	<0.3	<0.5	<5	23.55	NP	0.00	-	-
08/25/99	<50	<0.3	0.32	<0.3	<0.5	<5	22.14	NP	0.00	-	-
12/08/99	<50	<0.3	0.43	<0.3	<0.5	<5	17.53	NP	0.00	-	-
03/22/00	114	<0.25	<0.25	<0.25	<0.5	*7.7 / 9.6	22.15	NP	0.00	-	-
06/22/00	<50	<0.3	<0.3	<0.3	<0.6	<5	25.10	NP	0.00	-	-
09/20/00	<50	<0.18	<0.14	<0.18	<0.26	<0.24	23.57	NP	0.00	-	-
12/14/00	<50	<0.18	<0.14	<0.18	<0.26	*11 / 10	23.52	NP	0.00	-	-
03/01/01	<50	<0.18	<0.14	<0.18	<0.26	*9 / -	20.50	NP	0.00	-	-
06/28/01	<50	<0.18	<0.14	<0.18	<0.26	*8 / 17	22.03	NP	0.00	-	-
08/29/01	<50	<0.18	<0.14	<0.18	<0.26	<0.24	22.03	NP	0.00	-	-

TABLE 1
GROUNDWATER DATA
THRIFTY OIL STATION #055, HAYWARD, CA.

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO GROUNDWATER (feet)	DEPTH TO PRODUCT (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENES (ug/L)	MTBE (ug/L)					

NOTE:

ND = Nondetectable

NP = No free hydrocarbon product

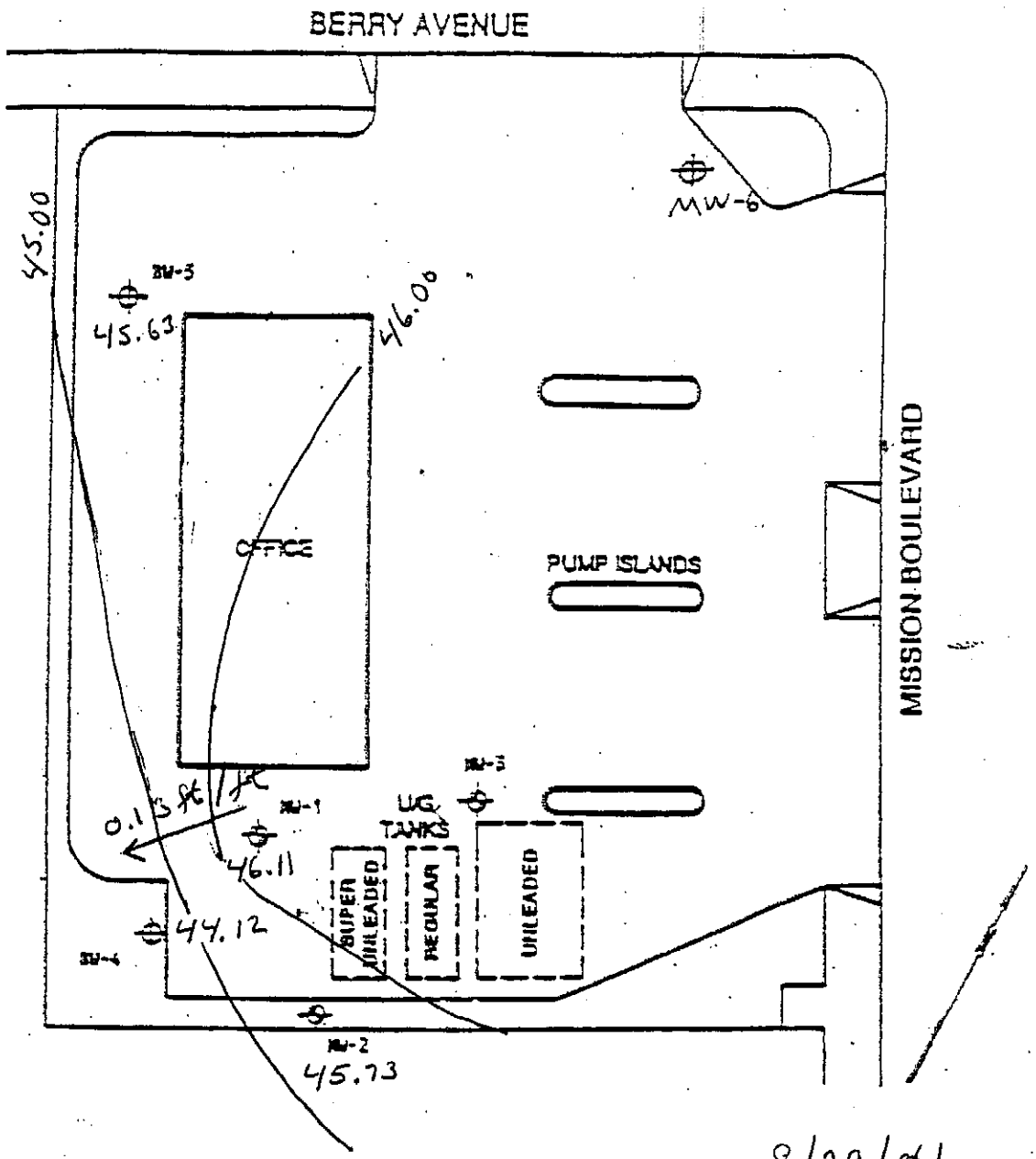
* MTBE 8020 / 8260

" - " = Not analyzed / Not available

Benzene, toluene, ethlybenzene, and xylene analyzed by EPA method 8020.

Total petroleum hydrocarbons (TPH) analyzed by EPA method 8015 modified for gasoline

Methyl-tert Butyl Ether (MTBE) analyzed by EPA method 8020 or 8260



GROUNDWATER CONTOUR MAP

Thrifty Oil Co. #055

25225 Mission Boulevard

HAYWARD, CA 94541

SCALE

0 5 25

FEET

⊕ · Groundwater Monitoring Well, GTI, 1986.

⊕ · Groundwater Monitoring Well, McLaren, 1989.

FIGURE 1

Limited Phase II Environmental Site Assessment
25501 and 25551 Mission Boulevard, Torrano Avenue, 671 Berry Avenue
Hayward, California

Project No.
12288.000.000

September 17, 2015

Mr. Justin Derby
MLC Holdings, Inc.
12657 Alcosta Boulevard, Suite 175
San Ramon, CA 94583

Subject: Former Hayward Ford Site
Hayward, California

LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT

Dear Mr. Derby:

We are pleased to submit the findings of our limited phase II environmental site assessment (ESA) undertaken at the subject property (Property) in Hayward, California. The assessment was conducted to address associated property data gaps, specifically past agricultural uses prior to the existing development, undocumented fill, and potential vapor intrusion concerns. Groundwater sampling was not requested at this time. MLC acknowledges additional sampling and testing may be required by agencies in the future.

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BACKGROUND

The roughly 9.6-acre irregular-shaped site is generally located northwest of Mission Boulevard and Torrano Avenue in Hayward, California. The overall site is comprised of the four parcels identified by the Assessor's Parcel Numbers (APN) and addresses listed in the table below, and are referred herein as the Pifer Property parcel and former Hayward Ford parcels.

TABLE 1
Parcels Associated with the Property

Address	APN	Identifier
25501 Mission Boulevard	444-60-19-4	Former Hayward Ford
25551 Mission Boulevard	444-60-31	
Torrano Avenue	444-60-30	
671 Berry Avenue	444-60-4	Pifer Property

ENGEO recently reviewed previous reports prepared for the subject property (Property). As requested, the purpose was to evaluate potential environmental concerns and determine if these concerns could impact the proposed development of the Property. Based on our review of available information, we present the following environmental concerns observed that could impact redevelopment.

- Agricultural uses have occurred onsite and site soils have yet to be assessed for potential agrichemical contaminants.

- A domestic water well is located within the Pifer Property.

- Given the age of the structures, asbestos-containing building material and/or lead-based paint may exist within the structures.

- Undocumented fill exists at the site and represents a data gap.

- Former automotive operations have impacted site soil and groundwater, most noticeably the former USTs and hydraulic lifts.

- A vapor intrusion assessment has yet to be performed for the site.

PREVIOUS ENVIRONMENTAL INVESTIGATIONS

Applied Environmental Technologies, Inc., Phase I Environmental Site Assessment, 25501-25551 Mission Boulevard, Hayward; April 30, 2008

Applied Environmental Technologies Inc (AET) performed a phase I environmental site assessment in 2008 for the former Hayward Ford parcels (8.7 acres). At the time of their reconnaissance, the dealership was in the process of decommissioning facility operations and preparing to vacate the property. Numerous facility equipment, including hydraulic lifts, above-ground storage tanks, and associated piping were observed. Within the main T-shaped service building, AET observed 17 of 40 service bays had in-ground hydraulic lifts of which 16 were abandoned in-place. Four above-ground storage tanks for new oil and new automatic transmission fluid were also observed. A hot parts washer and two aqueous parts washers were also located in the service area. A 500-gallon used oil AST and a 180-gallon plastic used coolant AST were observed on the exterior of the building, along the south wall of the west wing. The smaller service building had 11 bays with 7 in-ground hydraulic lifts of which 5 were abandoned in-place. Two 120-gallon steel ASTs and 1 aqueous parts washer were observed within the building. According to AET's observation, "*No significant staining was observed on the concrete floor around the ASTs and parts washers.*"

No current USTs were observed at the Site during AET's reconnaissance. Three groundwater-monitoring wells were observed with 2 near the former diesel and gasoline UST and 1 in the main service building near the former lift excavation.

Based on the findings of their assessment, AET concluded:

"*Areas of potential concern at the Site include the storage and use of petroleum products and the storage and disposal of petroleum and hazardous wastes, the presence of two clarifiers, the presence of three active and 21 out-of-service abandoned in-ground hydraulic lifts, the presence of three groundwater-monitoring wells, and the presence of three former USTs. The recent Site*

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occupant was observed to have handled petroleum products appropriately and to have generated and property disposed of wastes; however, the activities of past occupants cannot be documented. It is not known if the abandoned in-place lifts and/or former used oil UTS had leaked; however, the former gasoline and diesel USTs did leak and the Site is identified as an open LUST case at the HFD.

Based on the information reviewed and summarized, it is AET's professional opinion that this assessment has revealed no evidence of recognized environmental conditions, as previously defined, at the Site except for the previously identified impacted soil and groundwater at the former gasoline and diesel USTs (open LUST case at the HFD)."

Applied Environmental Technologies, Inc., Phase II Soil and Groundwater Assessment, Hayward Ford. 22501 Mission Boulevard, Hayward; May 14, 2008

AET performed a limited phase II soil and groundwater assessment for the former Hayward Ford parcels (8.7 acres) to address their environmental concerns identified within their referenced Phase I ESA summarized above. The scope included sampling the 3 groundwater monitoring wells as well as subsurface soil sampling at 21 abandoned in-place, 3 active in-ground hydraulic lifts, 2 clarifiers, and the former used oil UST.

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The findings of the assessment include:

- Elevated TPH concentrations are present in soil at depths up to 20 feet bgs. Due to the lack for VOCs and SVOCs, the TPH concentrations likely resulted from leakage of hydraulic fluid at lift locations.

- An exterior clarifier at the main service building indicated soil to a depth of approximately 5 feet bgs is impacted with low concentrations of TPHd and VOCs.

- Groundwater is impacted with gasoline-related compounds at MW-1 and MW-3; but at concentrations that are less than previously reported, indicating natural attenuation is likely occurring.

AET recommended that a licensed lift contractor remove the lifts and that a Workplan describing remedial activities be submitted to the Hayward Fire Department. AET also recommend that a licensed surveyor survey the lifts locations. Lastly, AET recommended that the open LUST case be addressed.

Applied Environmental Technologies, Inc., Groundwater Monitoring and Sampling (Second Quarter 2008), Hayward Ford, 25501 Mission Boulevard, Hayward; November 24, 2008

The report covers the groundwater sampling performed during the above described limited Phase II Soil and Groundwater Assessment and was submitted to the Hayward Fire Department as an update of conditions associated with the open LUST case for the site.

AET concluded the groundwater is impacted with gasoline-related compounds at MW-1 (STMW-1) and MW-3 but at concentrations less than those reported in December 1992, indicating that natural attenuation is likely occurring. AET recommended a Workplan for additional groundwater assessment be provided in the near future.

ERAS Environmental, Inc., Phase I Environmental Site Assessment, 671 Berry Avenue, Hayward; April 13, 2012

ERAS Environmental Inc. (ERAS) performed a phase I environmental site assessment in 2012 for the Pifer Property (0.9 acres). At the time of their assessment the site consisted of a residential house, out buildings/sheds and open space. A domestic water well was observed on the southeastern side of the house. Twenty pints and 12 quarts of oil spray and 5 to 10 gallons of common household cleaners were observed. No leaks or spills were observed. No evidence of septic systems, USTs, ASTs, or monitoring wells were observed.

ERAS did not identify any recognized environmental conditions for the Pifer property and provided the following recommendations:

- Suspect asbestos and lead paint should be collected and analyzed.
- If the domestic groundwater well is not retained, then the well should be properly abandoned.
- No further investigations were recommended.

San Francisco Bay Regional Water Quality Control Board regarding File No. 01-1130 (CLP), Transmittal of Closure Letter for Former Hayward Ford, 25501 Mission Blvd, Hayward; November 12, 2013

San Francisco Bay Regional Water Quality Control Board was the lead agency for the LUST case and issued a Closure Letter on November 12, 2013, indicating the case meets the State Board's Low-Threat Case Closure Policy and that No Further Action is required. The previously mentioned monitoring wells were destroyed in June 2013. At the time of Closure, the site was zoned commercial and the RWQCB acknowledged residual impacts remain with soil and groundwater at depth.

RECENT INVESTIGATIONS

ENGEO conducted a limited phase II environmental assessment at the Property, including the recovery of soil and soil gas samples to address associated property data gaps, specifically past agricultural uses prior to the existing development, undocumented fill, and potential vapor intrusion concerns. Field activities were performed on September 2, 2015. The tasks associated with the site assessment are detailed below.

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Task 1 – Soil Characterization

A soil sampling study was performed to address potential subsurface impairments associated with the past agricultural use and to characterize undocumented fill material on the Property.

A Geoprobe® truck-mounted rig was used to facilitate sample collection. Soil samples were retrieved within continuous Geoprobe acetate core liners measuring 4 feet in length. Specific soil samples were collected for laboratory analysis by cutting a 6-inch portion of the Geoprobe soil core liners from the desired sample depth.

Following recovery, the sample liners were sealed using Teflon® sheets secured by tight-fitting plastic end caps. Upon collection, a label was placed on the sample that included a unique sample number, sample location, time/date collected, laboratory analysis, and the sampler's identification. The soil samples were placed in an ice-cooled chest and submitted under documented chain-of-custody to Torrent Laboratory, Inc., a State-certified laboratory in Milpitas, California.

Task 1a - Soil Characterization: Past Agricultural Use of the Property

A near-surface sampling study was performed to address potential subsurface impairments associated with the past agricultural use of the Property.

A total of 20 samples were collected from the Property. Sixteen samples were collected using a Geoprobe® rig. Four samples were collected from the northern portion of the Property using hand-sampling equipment due to access constraints.

Continuous soil cores were collected at 16 locations at the Property as depicted on Figure 2. Soil samples were collected to a maximum depth of 2.5 feet below the ground surface. Specifically, samples were collected from each respective sampling location at depths of 6 to 18 inches and 18 to 30 inches below the ground surface.

An additional four samples were collected using pre-cleaned 2-inch by 6-inch stainless steel liners. The samples (AG5-A through AG5-D) were recovered between approximately 6 to 12 inches below the ground surface at the approximate locations depicted in Figure 2.

The shallow (6- to 12-inch and 6- to 18-inch) samples were initially analyzed while the deeper (18- to 30-inch) samples were placed on hold pending a review of the shallow sample laboratory results. The laboratory was instructed to prepare five 4-point composite soil samples. The 5 composite samples were analyzed for organochlorine pesticides (EPA 8081A) and 5 of the soil samples were analyzed on a discrete basis for total arsenic (EPA 6020B).

Task 1b - Soil Characterization: Characterization of Undocumented Fill Material

The objective of Task 1b was to characterize the undocumented fill on the Property. Three soil samples were collected at a maximum depth of 5 feet below ground surface.

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The soil samples were submitted to a State-certified fixed laboratory for analysis of total petroleum hydrocarbons as gasoline (TPH-g) and volatile organic compounds (VOCs) (EPA Method 8260), total petroleum hydrocarbons as diesel (TPH-d) and total petroleum hydrocarbons as motor-oil (EPA Method 8015 with silica gel cleanup), and CAM-17 metals (EPA Method 6010/7471A).

Task 2 – Soil Gas Assessment

In order to evaluate potential vapor intrusion concerns, a soil gas assessment was performed. Six temporary soil gas monitoring wells were installed at the Property and sampled on June 26, 2015. The soil gas well locations are presented on Figure 2.

The installation and sampling of the soil gas monitoring wells were performed in accordance with the Department of Toxic Substances Control (DTSC) Final Advisory Active Soil Gas Investigations (2015). The soil gas monitoring well casings were constructed with ¼-inch-diameter Teflon tubing equipped with a filter at the base of the tubing. The well installation was performed with a direct push probe rig, which advanced an approximately 2-inch-diameter boring to a depth of 6 feet below the ground surface. For each well, the bottom of the well casing was equipped with a filter situated at a depth of 5 feet below the ground surface, centered in the middle of a 2-foot-layer of No. 3 sand. The 2-foot-long sand pack was designed to provide adequate flow within potentially low permeability lithology at the Property. Six inches of dry bentonite was installed on top of the sand, and the remaining annular space was filled with hydrated bentonite grout to the surface. Following installation of the annular seal, the well casings were equipped with a permanent Swagelok® ferrule and nut. A threaded plug was then screwed into the nut and the mandatory two-hour equilibration time began.

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The sample train was connected to the well tubing by threading the permanent Swagelok® fitting on the well casing onto the manifold. The sample train consisted of a stainless steel twin summa manifold with a built-in flow controller set to 100 to 200 milliliters per minute (ml/min). A purge vacuum pump was attached to the manifold connection closest to the well casing and the sample canister was connected to the manifold fitting furthest away from the well casing. Prior to connecting the sample train to the well casing, a shut-in test was performed to assess for potential leaks. The shut-in test consisted of capping the end of the manifold, then applying a vacuum with the vacuum pump, closing the purge valve, and observing the vacuum gauge for two minutes to check for a drop in the vacuum. Once the sample train was connected to the well casing, all of the valves were closed, allowing a mandatory two-hour equilibration time to commence. After the two-hour equilibration time elapsed, three well volumes were purged from the wells. After purging was completed, the purge valve on the manifold was closed, and the vacuum pump was removed and connected to another well. Samples were collected by opening the sample canister valve and allowing the sample canister to extract soil gas until the vacuum in the sample canister reached approximately 5 inches of mercury. The leak detection compound 1,1-diflouroethane (1,1-DFA) was applied by wrapping a doused rag around the manifold fittings during sample collection.

Each sample canister was labeled with a unique identification number, sampling time, and pre- and post-sample vacuum readings. The soil gas samples were submitted to Torrent Laboratory, Inc., a State-certified fixed laboratory, under documented chain-of-custody for analysis of VOCs by EPA Test Method TO-15.

Due to the presence of low-permeability clay soils and/or an issue with well construction, a sample could not be successfully collected from soil gas well SV-2, which had been installed within the vicinity of the former fuel USTs.

ANALYTICAL RESULTS

Soil Sampling (Tasks 1a and 1b)

Review of the laboratory test results found detectable concentrations of organochlorine pesticides (including DDT, DDE, dieldrin, endrin aldehyde, gamma-chlordane, alpha-chlordane, chlordane and heptachlor epoxide) in the five shallow composite samples (6- to 12-inch and/or 6- to 18-inch). The deepest soil samples (18 to 30 inches) were not analyzed. With the exception of sample AG3-(A-D), the reported organochlorine pesticide concentrations are below the applicable USEPA's RSLs for residential screening levels. Dieldrin was detected at a concentration of 86 micrograms per kilograms (µg/kg), which exceeds the RSL of 34 µg/kg in composite sample AG3- (A-D). We instructed the laboratory to to analyze the 4-point composite sample on a discrete basis. Dieldrin was detected at a concentration of 29 µg/kg , well below its residential RSL value, in one of the discrete samples. Dieldrin was not detected above the laboratory reporting limits in the other three discrete samples.

As presented in Table A, arsenic was detected in four of the shallow soil samples and in the three soil samples collected from the fill material. The reported concentrations of arsenic ranged from 3.2 milligrams per kilograms (mg/kg) to 7.6 mg/kg. All reported arsenic concentrations are within background concentrations found in this region of the State of California[1].

In addition, eight metals (including barium, chromium, cobalt, copper, lead, nickel, vanadium and zinc) were detected in the three soil samples collected from the fill material at the Property. The reported concentrations for the above-referenced metals are below the corresponding RSLs for residential land use.

VOCs and TPH-g were not detected in the soil samples collected from the Property. TPH-d and TPH-mo were detected in Sample S3 at 5 feet at a concentration of 2.2 milligrams per kilograms (mg/kg) and 43 mg/kg, respectively. TPH-mo was detected in Sample S1 at 4 feet at a concentration of 18 mg/kg. These concentrations are below the RSLs for a residential land use scenario.

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[1] Bradford, G.R., A.C. Chang, A.L. Page, D. Bakhtar. J.A. Frampton, and H. Wright; Background Concentrations of Trace and Major elements in California Soils; Kearney Foundation of Soil Science, Division of Agriculture and Natural resources, University of California; March 1996.

Soil Gas Sampling (Task 2)

Several target analytes were detected within the sampled soil gas wells. These analytes included 1,3-butadiene, acetone, hexane, 2-hexanone, cis-1,2-dichloroethene, trichloroethylene, carbon disulfide, 4-methyl-2-pentanone (MIBK), 2-butanone (MEK), benzene, ethyl benzene, 1,2,4 trimethylbenzene, toluene, 4-ethyl toluene, m,p-xylene, o-xylene, and MTBE. The leak check compound 1,1-DFA was not detected in any of the samples.

We compared the detected soil gas concentrations to the residential screening levels established by the Department of Toxic Substances Control[2]. The concentrations were below the corresponding screening levels. A summary of the soil gas analytical results is presented in Table B. The laboratory results are presented in their entirety in Appendix A.

DISCUSSION AND CONCLUSION

Review of the laboratory test results found detectable concentrations of several pesticides; however, with the exception of Sample AG3-(A-D), the reported concentrations are below the applicable USEPA's RSLs for residential screening levels. Dieldrin was detected at a concentration of 86 µg/kg, which exceeds the RSL of 34 µg/kg in composite sample AG3-(A-D). However, the four discrete samples which made up the 4-point composite sample exhibited dieldrin concentrations, which were well below the RSL value or were not detected above the laboratory reporting limit. These results are likely attributed to the heterogeneity in the soil. Based on these results, we do not believe that the Property has been adversely impacted due to its past agricultural use.

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The reported concentrations of arsenic ranged from 3.2 milligrams per kilograms (mg/kg) to 7.6 mg/kg. All reported arsenic concentrations are within background concentrations found in this region of the State of California[3].

In addition, eight metals (including barium, chromium, cobalt, copper, lead, nickel, vanadium, and zinc) were detected in the three soil samples collected from the fill material at the Property. The detected concentrations were below their respective screening levels.

VOCs and TPH-g were not detected in the soil samples collected from the Property. TPH-d and TPH-mo were detected at concentrations below their corresponding screening levels.

In the five soil gas samples collected from the Property, VOCs (including 1,3-butadiene, acetone, hexane, 2-hexanone, cis-1,2-dichloroethene, trichloroethylene, carbon disulfide, 4-methyl-2-pentanone (MIBK), 2-butanone (MEK), benzene, ethyl benzene, 1,2,4

[2] Department of Toxic Substances Control, Human and Ecological Risk Office, HHRA Note #3, DTSC-Modified Screening Levels, May 2015, Table 3 - Residential Ambient Air, adjusted soil gas screening level for 0.001 attenuation factor.

[3] Bradford, G.R., A.C. Chang, A.L. Page, D. Bakhtar. J.A. Frampton, and H. Wright; Background Concentrations of Trace and Major elements in California Soils; Kearney Foundation of Soil Science, Division of Agriculture and Natural resources, University of California; March 1996.

trimethylbenzene, toluene, 4-ethyl toluene, m,p-xylene, o-xylene, and MTBE) were detected at low concentrations, below the corresponding screening levels, assuming a residential land use scenario. Therefore, vapor encroachment/intrusion would not be considered to pose a risk to future occupants associated with the proposed residential land use redevelopment of the Property, and no mitigation (i.e., vapor intrusion mitigation systems) is recommended.

Given the history of the site, it is possible that some areas with potentially impacted soil could be encountered during future site development activities. If encountered, these materials should be handled in an appropriate manner under the observation of an environmental professional. We recommend the preparation of a Soil Management Plan (SMP) to outline procedures and protocols for handling potentially impacted soil.

If you have any questions or comments regarding this report, please call and we will be glad to discuss them with you.

Sincerely,

ENGEO Incorporated

DRAFT

Kelsey Gerhart, EIT Shawn Munger, CHG
kg/sm/jf

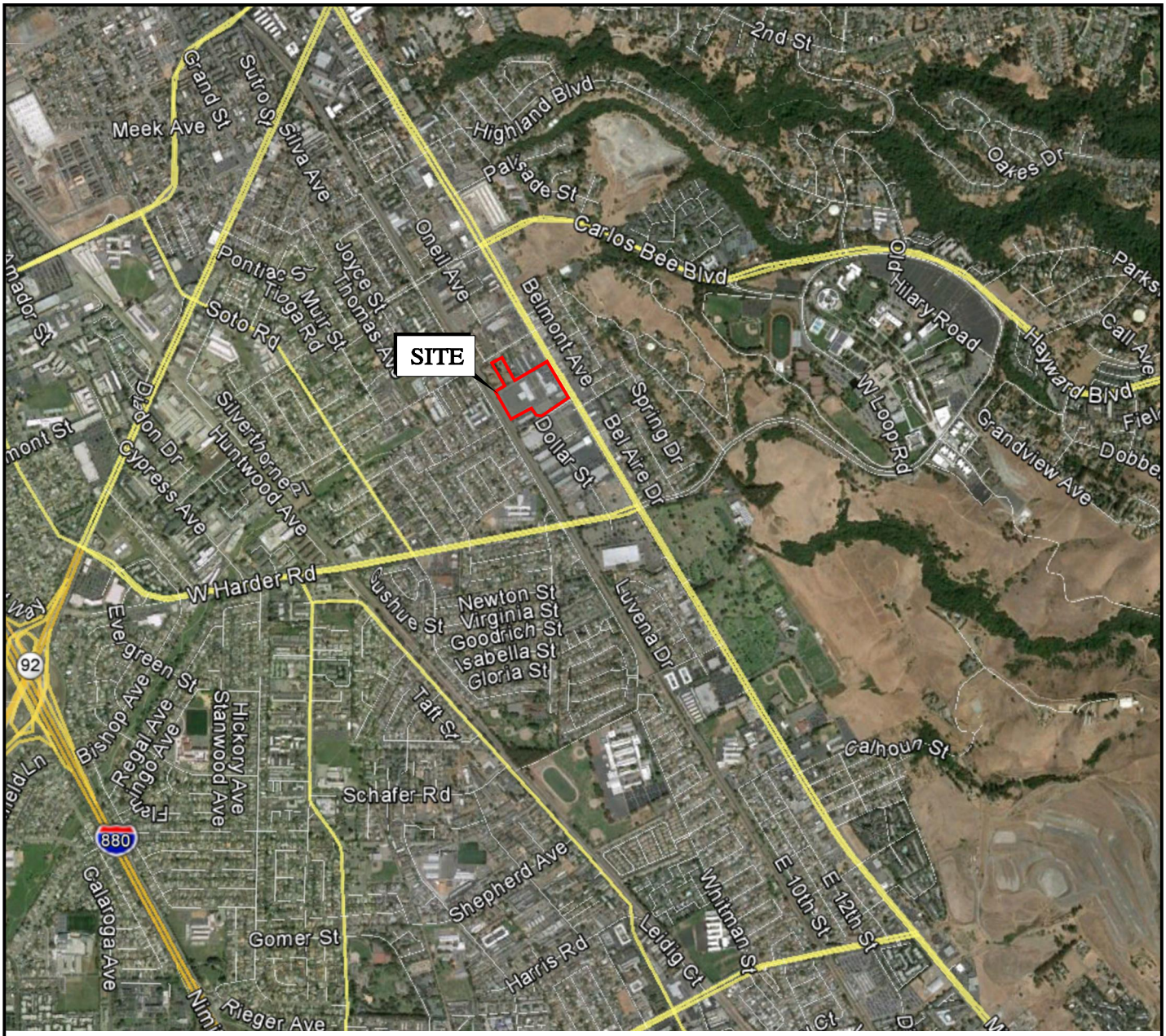
Attachments: Figures 1 and 2
Tables A and B
Appendix A – Laboratory Analysis Report

FIGURES

Figure 1 – Vicinity Map
Figure 2 – Site Plan

DRAFT

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N

0 FEET 2000

0 METERS 1000

BASE MAP SOURCE: GOOGLE EARTH PRO

ENGEO Expect Excellence

VICINITY MAP

FORMER HAYWARD FORD SITE

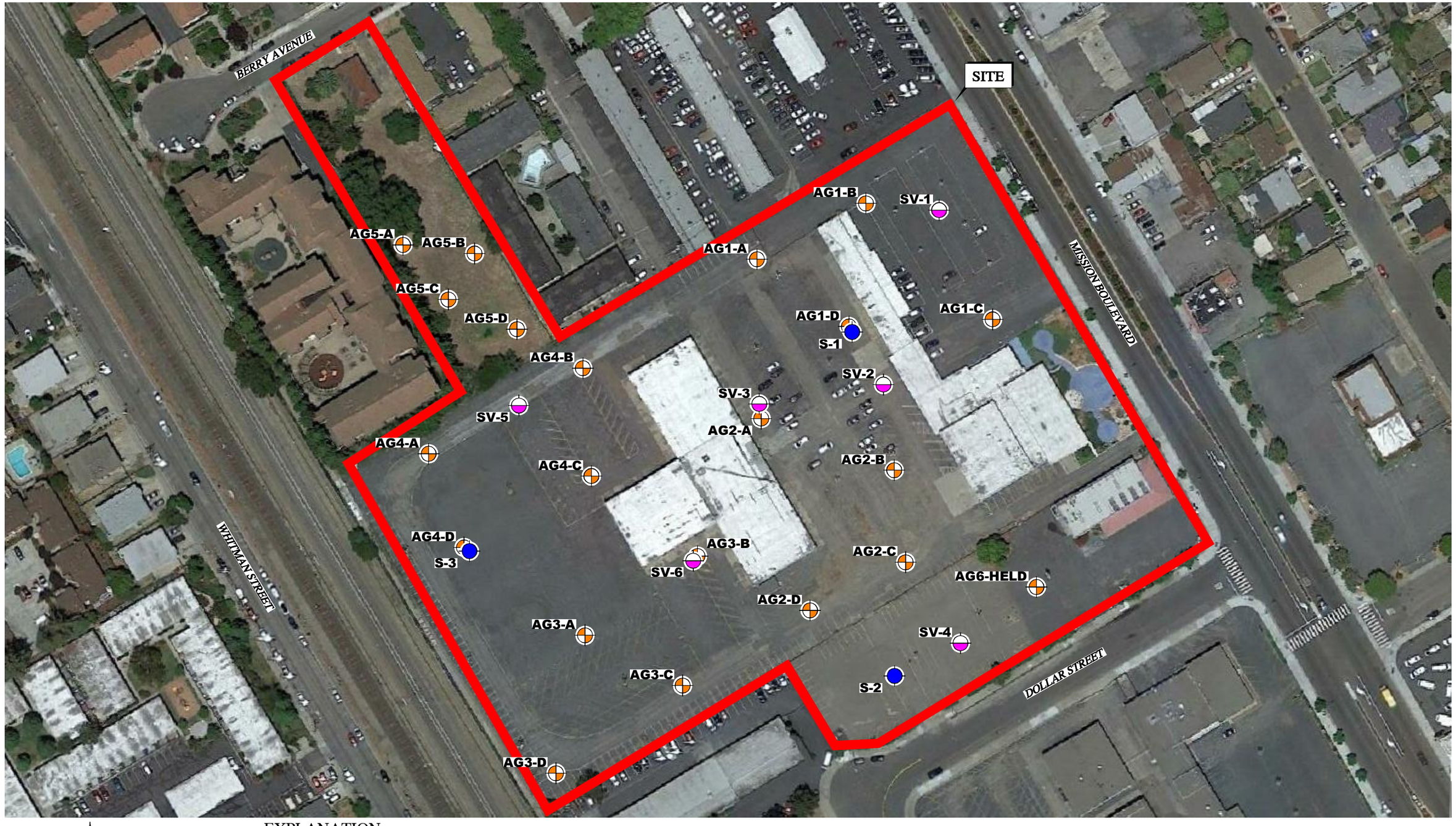
HAYWARD, CALIFORNIA

PROJECT NO.: 12288.000.000		FIGURE NO. 1
SCALE: AS SHOWN		
DRAWN BY: LL	CHECKED BY: SM	

G:\Drafting\DRAFTING2_Dwg_10000 to 12999\12288\000\SAMPLING PLAN\12288000000-1-Sampling-VicMap-0915.dwg Plot Date: 9-10-15 llee

ORIGINAL FIGURE PRINTED IN COLOR

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N

0 FEET 100

0 METERS 50

EXPLANATION

ALL LOCATIONS ARE APPROXIMATE

AG6-HELD — AGRICHEMICAL SAMPLE

SV-6 — SOIL GAS

S-3 — FILL SAMPLE

BASE MAP SOURCE: UNKNOWN

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SITE PLAN

FORMER HAYWARD FORD SITE

HAYWARD, CALIFORNIA

PROJECT NO.: 12288.000.000		FIGURE NO. 2
SCALE: AS SHOWN		
DRAWN BY: LL	CHECKED BY: SM	

G:\Drafting\DRAFTING2_Dwg_10000 to 12999\12288\000\SAMPLING PLAN\12288000000-2-Sampling-SitePlan-0915.dwg Plot Date: 9-11-15 llee

ORIGINAL FIGURE PRINTED IN COLOR

TABLES

Table A - Summary of Soil Analytical Results
Table B - Summary of Soil Gas Analytical Results

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TABLE A - SUMMARY OF SOIL GAS ANALYTICAL RESULTS

Sample ID	Date	Depth	1,3-Butadiene	Acetone	Hexane [2]	2-Hexanone [2]	cis-1,2-Dichloroethene [2]	Trichloroethylene	Carbon Disulfide [2]	4-Methyl-2-Pentanone (MIBK) [2]	2-Butanone (MEK) [2]	Benzene	Ethyl Benzene	1,2,4-Trimethylbenzene [2]	Toluene	m,p-Xylene	o-Xylene	MTBE	4-Ethyl Toluene	Other VOCs
		(ft.)	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³
DTSC SL[1]			17	3.2E+07	7.30E+05	3.10E+04	8.30E+03	4.8E+02	7.30E+05	3.10E+06	5.20E+06	97	1.1E+03	7.30E+03	3.1E+05	1.0E+05	1.0E+05	1.1E+04	--	N/A
SV-1	9/2/2015	6	ND	210	48.8	ND	43.8	ND	35.3	ND	ND	14.90	ND	ND	ND	ND	ND	ND	ND	ND
SV-3	9/2/2015	6	ND	ND	59.8	28.6	ND	47.1	36.3	11.7	25.5	22.9	3.61	8.60	15.8	19.4	7.16	12.50	6.25	ND
SV-4	9/2/2015	6	7.19	91.6	31.8	ND	ND	ND	13.9	82.2	16.7	5.81	ND	ND	8.72	17.8	8.32	ND	ND	ND
SV-5	9/2/2015	6	ND	217	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SV-6	9/2/2015	6	ND	220	34.8	13.3	ND	ND	41.5	ND	10.2	11.7	ND	ND	7.30	23.4	6.84	298	ND	ND

Notes:

N/A =Not Applicable

ND = not detected

[1] Department of Toxic Substances Control Modified Screening Levels May 2015 (adjusted soil gas screening level for 0.001 attenuation)

[2] A cancer end-point screening level does not exist for the analyte thus the non-cancer endpoint screening level was reported.

'--' means no SL exists

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Table B - Summary of Soil Gas Analytical Results

Screening Level[1]				0.68[4]	15,000	--	23	3,100	80[2]	1500[3]	390	23,000	N/A	2,000	1,900	2,300	34	--	N/A	N/A	1,700	70	N/A	N/A	82	110	2,500
AG1-A @ 6-18"	9/2/2015	6-18	Discrete	7.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AG2-B @ 6-18"	9/2/2015	6-18	Discrete	3.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AG3-A @ 6-18"	9/2/2015	6-18	Discrete	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	29	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
AG3-B @ 6-18"	9/2/2015	6-18	Discrete	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
AG3-C @ 6-18"	9/2/2015	6-18	Discrete	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
AG3-D @ 6-18"	9/2/2015	6-18	Discrete	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	220	300	19	ND	14	ND	ND	ND	ND	ND	ND	NA	NA	NA
AG4-D @ 6-18"	9/2/2015	6-18	Discrete	3.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AG5-B @ 6-12"	9/2/2015	6-12	Discrete	6.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AG1- (A-D @ 6-18")	9/2/2015	6-18	Composite	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.3	ND	ND	ND	50	ND	ND	ND	ND	ND	ND	NA	NA	NA
AG2- (A-D @ 6-18")	9/2/2015	6-18	Composite	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
AG3- (A-D @ 6-18")	9/2/2015	6-18	Composite	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	56	120	ND	**86**	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
AG4- (A-D @ 6-18")	9/2/2015	6-18	Composite	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
AG5- (A-D @ 6-12")	9/2/2015	6-12	Composite	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	15	9.7	ND	23	ND	40	49	410	5.1	ND	NA	NA	NA	NA
S1 @ 4'	9/2/2015	48 (4 ft.)	Discrete	4.8	160	34	12	45	9.1	31	56	58	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	18
S2 @ 5'	9/2/2015	60 (5 ft.)	Discrete	7.6	190	46	10	46	8.9	33	67	49	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND
S3 @ 5'	9/2/2015	60 (5 ft.)	Discrete	5.4	110	34	8.9	25	14	36	36	84	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	ND	ND	2.2	43

Notes:
N/A = not applicable
NA= not analyzed
ND = not detected
[1] EPA Region 9 Regional Screening Levels (RSLs) for residential soil, June 2015.
[2] Cal/EPA, California Human Health Screening Levels (CHHSLs), January 2005.
[3] Regional Water Quality Control Board (RWQCB) Environemntal Screening Level for Direct Exposure- Residential Land Use (Table K-1), December 2013
[4] Although Arsenic concentrations exceeded the RSLs, concentrations are within background concentrations found in the San Francisco Bay Area.

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APPENDIX A

Laboratory Analysis Report

12288.000.000
September 17, 2015

Engeo (San Ramon)
2010 Crow Canyon Place,#250
San Ramon, California 94583
Tel: (925) 866-9000
Fax: (925) 866-0199

RE: Former Hayward Ford Site

Work Order No.: 1509029

Dear Scott Johns:

Torrent Laboratory, Inc. received 5 sample(s) on September 03, 2015 for the analyses presented in the following Report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.



Patti Sandrock
QA Officer

September 08, 2015
Date

Date: 9/8/2015

Client: Engeo (San Ramon)

Project: Former Hayward Ford Site

Work Order: 1509029

CASE NARRATIVE

No issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.

Unless otherwise indicated in the following narrative, no results have been method and/or field blank corrected.

Reported results relate only to the items/samples tested by the laboratory.

This report shall not be reproduced, except in full, without the written approval of Torrent Analytical, Inc.

Analytical Comment for A_TO15 Note:The % recovery for 4-BFB in the LCS and/or LCSD is outside of laboratory control limits (high bias) in QC Batch 426876. The surrogates were in control for all associated samples. The % recovery for all spiked compounds in the LCS and LCSD were within control limits. The outlier will be considered in the next control chart update. No corrective action is required.

Torrent LABORATORY, INC.

Sample Result Summary

Report prepared for: Scott Johns
Engeo (San Ramon)

Date Received: 09/03/15
Date Reported: 09/08/15

SV-1 1509029-001A

Parameters:	Analysis Method	DF	MDL	PQL	Results ug/m3
Carbon Disulfide	ETO15	15	12	47	35.3
Acetone	ETO15	15	13	290	210
Hexane	ETO15	15	7.9	26	48.8
cis-1,2-Dichloroethene	ETO15	15	8.1	30	43.8
Benzene	ETO15	15	10	24	14.9

SV-3 1509029-002A

Parameters:	Analysis Method	DF	MDL	PQL	Results ug/m3
Carbon Disulfide	ETO15	1.5	1.2	4.7	36.3
Hexane	ETO15	1.5	0.79	2.6	59.8
MTBE	ETO15	1.5	1.3	2.7	12.5
2-Butanone (MEK)	ETO15	1.5	0.94	2.3	25.5
Benzene	ETO15	1.5	1.0	2.4	22.9
Trichloroethylene	ETO15	1.5	2.1	8.1	47.1
Toluene	ETO15	1.5	1.4	2.9	15.8
4-Methyl-2-Pentanone (MIBK)	ETO15	1.5	1.3	3.1	11.7
2-Hexanone	ETO15	1.5	1.7	6.2	28.6
Ethyl Benzene	ETO15	1.5	1.5	3.2	3.61
m,p-Xylene	ETO15	1.5	2.4	6.5	19.4
o-Xylene	ETO15	1.5	1.2	3.2	7.16
4-Ethyl Toluene	ETO15	1.5	1.2	3.7	6.25
1,2,4-Trimethylbenzene	ETO15	1.5	1.0	3.7	8.60

Torrent LABORATORY, INC.

Sample Result Summary

Report prepared for: Scott Johns
Engeo (San Ramon)

Date Received: 09/03/15
Date Reported: 09/08/15

SV-4 1509029-003A

Parameters:	Analysis Method	DF	MDL	PQL	Results ug/m3
1,3-Butadiene	ETO15	1.5	0.67	1.7	7.19
Carbon Disulfide	ETO15	1.5	1.2	4.7	13.9
Acetone	ETO15	1.5	1.3	29	91.6
Hexane	ETO15	1.5	0.79	2.6	31.8
2-Butanone (MEK)	ETO15	1.5	0.94	2.3	16.7
Benzene	ETO15	1.5	1.0	2.4	5.81
Toluene	ETO15	1.5	1.4	2.9	8.72
4-Methyl-2-Pentanone (MIBK)	ETO15	1.5	1.3	3.1	82.2
m,p-Xylene	ETO15	1.5	2.4	6.5	17.8
o-Xylene	ETO15	1.5	1.2	3.2	8.32

SV-5 1509029-004A

Parameters:	Analysis Method	DF	MDL	PQL	Results ug/m3
Acetone	ETO15	50	44	960	217

SV-6 1509029-005A

Parameters:	Analysis Method	DF	MDL	PQL	Results ug/m3
Carbon Disulfide	ETO15	1.5	1.2	4.7	41.5
Acetone	ETO15	1.5	1.3	29	220
Hexane	ETO15	1.5	0.79	2.6	34.8
MTBE	ETO15	1.5	1.3	2.7	298
2-Butanone (MEK)	ETO15	1.5	0.94	2.3	10.2
Benzene	ETO15	1.5	1.0	2.4	11.7
Toluene	ETO15	1.5	1.4	2.9	7.30
2-Hexanone	ETO15	1.5	1.7	6.2	13.3
m,p-Xylene	ETO15	1.5	2.4	6.5	23.4
o-Xylene	ETO15	1.5	1.2	3.2	6.84

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Scott Johns
Engeo (San Ramon)

Date Received: 09/03/15
Date Reported: 09/08/15

Client Sample ID:	SV-1	**Lab Sample ID:**	1509029-001A
Project Name/Location:	Former Hayward Ford Site	**Sample Matrix:**	Air
Project Number:	12288.000.000		
Date/Time Sampled:	09/02/15 / 13:00	**Certified Clean WO # :**	
Canister/Tube ID:	6115	**Received PSI :**	12.5
Collection Volume (L):	0.00	**Corrected PSI :**	0.0

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Lab Qualifier	Analytical Batch	Prep Batch
The results shown below are reported using their MDL.											
Dichlorodifluoromethane	ETO15	NA	09/03/15	15	23	75	ND	ND		426875	NA
1,1-Difluoroethane	ETO15	NA	09/03/15	15	7.5	20	ND	ND		426875	NA
1,2-Dichlorotetrafluoroethane	ETO15	NA	09/03/15	15	74	210	ND	ND		426875	NA
Chloromethane	ETO15	NA	09/03/15	15	4.8	16	ND	ND		426875	NA
Vinyl Chloride	ETO15	NA	09/03/15	15	10	39	ND	ND		426875	NA
1,3-Butadiene	ETO15	NA	09/03/15	15	6.7	17	ND	ND		426875	NA
Bromomethane	ETO15	NA	09/03/15	15	11	29	ND	ND		426875	NA
Chloroethane	ETO15	NA	09/03/15	15	7.5	20	ND	ND		426875	NA
Trichlorofluoromethane	ETO15	NA	09/03/15	15	27	84	ND	ND		426875	NA
1,1-Dichloroethene	ETO15	NA	09/03/15	15	9.2	30	ND	ND		426875	NA
Freon 113	ETO15	NA	09/03/15	15	13	58	ND	ND		426875	NA
Carbon Disulfide	ETO15	NA	09/03/15	15	12	47	35.3	11.39	J	426875	NA
2-Propanol (Isopropyl Alcohol)	ETO15	NA	09/03/15	15	15	300	ND	ND		426875	NA
Methylene Chloride	ETO15	NA	09/03/15	15	8.8	420	ND	ND		426875	NA
Acetone	ETO15	NA	09/03/15	15	13	290	210	87.50	J	426875	NA
trans-1,2-Dichloroethene	ETO15	NA	09/03/15	15	9.6	30	ND	ND		426875	NA
Hexane	ETO15	NA	09/03/15	15	7.9	26	48.8	13.94		426875	NA
MTBE	ETO15	NA	09/03/15	15	13	27	ND	ND		426875	NA
tert-Butanol	ETO15	NA	09/03/15	15	14	130	ND	ND		426875	NA
Diisopropyl ether (DIPE)	ETO15	NA	09/03/15	15	13	32	ND	ND		426875	NA
1,1-Dichloroethane	ETO15	NA	09/03/15	15	11	31	ND	ND		426875	NA
ETBE	ETO15	NA	09/03/15	15	10	32	ND	ND		426875	NA
cis-1,2-Dichloroethene	ETO15	NA	09/03/15	15	8.1	30	43.8	10.95		426875	NA
Chloroform	ETO15	NA	09/03/15	15	18	74	ND	ND		426875	NA
Vinyl Acetate	ETO15	NA	09/03/15	15	8.5	26	ND	ND		426875	NA
Carbon Tetrachloride	ETO15	NA	09/03/15	15	13	47	ND	ND		426875	NA
1,1,1-Trichloroethane	ETO15	NA	09/03/15	15	13	41	ND	ND		426875	NA
2-Butanone (MEK)	ETO15	NA	09/03/15	15	9.4	23	ND	ND		426875	NA
Ethyl Acetate	ETO15	NA	09/03/15	15	11	27	ND	ND		426875	NA
Tetrahydrofuran	ETO15	NA	09/03/15	15	4.5	23	ND	ND		426875	NA
Benzene	ETO15	NA	09/03/15	15	10	24	14.9	4.66	J	426875	NA
TAME	ETO15	NA	09/03/15	15	5.4	32	ND	ND		426875	NA
1,2-Dichloroethane (EDC)	ETO15	NA	09/03/15	15	15	31	ND	ND		426875	NA
Trichloroethylene	ETO15	NA	09/03/15	15	21	81	ND	ND		426875	NA
1,2-Dichloropropane	ETO15	NA	09/03/15	15	20	69	ND	ND		426875	NA

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Scott Johns
Engeo (San Ramon)

Date Received: 09/03/15
Date Reported: 09/08/15

Client Sample ID:	SV-1	**Lab Sample ID:**	1509029-001A
Project Name/Location:	Former Hayward Ford Site	**Sample Matrix:**	Air
Project Number:	12288.000.000		
Date/Time Sampled:	09/02/15 / 13:00	**Certified Clean WO # :**	
Canister/Tube ID:	6115	**Received PSI :**	12.5
Collection Volume (L):	0.00	**Corrected PSI :**	0.0

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Lab Qualifier	Analytical Batch	Prep Batch
Bromodichloromethane	ETO15	NA	09/03/15	15	13	50	ND	ND		426875	NA
1,4-Dioxane	ETO15	NA	09/03/15	15	19	54	ND	ND		426875	NA
trans-1,3-Dichloropropene	ETO15	NA	09/03/15	15	13	34	ND	ND		426875	NA
Toluene	ETO15	NA	09/03/15	15	14	29	ND	ND		426875	NA
4-Methyl-2-Pentanone (MIBK)	ETO15	NA	09/03/15	15	13	31	ND	ND		426875	NA
cis-1,3-Dichloropropene	ETO15	NA	09/03/15	15	17	34	ND	ND		426875	NA
Tetrachloroethylene	ETO15	NA	09/03/15	15	14	51	ND	ND		426875	NA
1,1,2-Trichloroethane	ETO15	NA	09/03/15	15	14	41	ND	ND		426875	NA
Dibromochloromethane	ETO15	NA	09/03/15	15	26	64	ND	ND		426875	NA
1,2-Dibromoethane (EDB)	ETO15	NA	09/03/15	15	31	120	ND	ND		426875	NA

NOTE: The reporting limits were raised due to the high concentration of non-target heavy end compounds.

The results shown below are reported using their MDL.

2-Hexanone	ETO15	NA	09/03/15	15	17	62	ND	ND		426875	NA
Ethyl Benzene	ETO15	NA	09/03/15	15	15	32	ND	ND		426875	NA
Chlorobenzene	ETO15	NA	09/03/15	15	11	35	ND	ND		426875	NA
1,1,1,2-Tetrachloroethane	ETO15	NA	09/03/15	15	16	52	ND	ND		426875	NA
m,p-Xylene	ETO15	NA	09/03/15	15	24	65	ND	ND		426875	NA
o-Xylene	ETO15	NA	09/03/15	15	12	32	ND	ND		426875	NA
Styrene	ETO15	NA	09/03/15	15	10	33	ND	ND		426875	NA
Bromoform	ETO15	NA	09/03/15	15	17	75	ND	ND		426875	NA
1,1,2,2-Tetrachloroethane	ETO15	NA	09/03/15	15	11	52	ND	ND		426875	NA
4-Ethyl Toluene	ETO15	NA	09/03/15	15	12	37	ND	ND		426875	NA
1,3,5-Trimethylbenzene	ETO15	NA	09/03/15	15	11	37	ND	ND		426875	NA
1,2,4-Trimethylbenzene	ETO15	NA	09/03/15	15	10	37	ND	ND		426875	NA
1,4-Dichlorobenzene	ETO15	NA	09/03/15	15	9.7	45	ND	ND		426875	NA
1,3-Dichlorobenzene	ETO15	NA	09/03/15	15	13	45	ND	ND		426875	NA
1,2-Dichlorobenzene	ETO15	NA	09/03/15	15	14	45	ND	ND		426875	NA
Hexachlorobutadiene	ETO15	NA	09/03/15	15	36	83	ND	ND		426875	NA
1,2,4-Trichlorobenzene	ETO15	NA	09/03/15	15	51	110	ND	ND		426875	NA
Naphthalene	ETO15	NA	09/03/15	15	22	78	ND	ND		426875	NA
(S) 4-Bromofluorobenzene	ETO15	NA	09/03/15	15	65	135	106 %			426875	NA

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Scott Johns
Engeo (San Ramon)

Date Received: 09/03/15
Date Reported: 09/08/15

Client Sample ID:	SV-3	**Lab Sample ID:**	1509029-002A
Project Name/Location:	Former Hayward Ford Site	**Sample Matrix:**	Air
Project Number:	12288.000.000		
Date/Time Sampled:	09/02/15 / 14:11	**Certified Clean WO # :**	
Canister/Tube ID:	6320	**Received PSI :**	11.0
Collection Volume (L):	0.00	**Corrected PSI :**	0.0

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Lab Qualifier	Analytical Batch	Prep Batch
Dichlorodifluoromethane	ETO15	NA	09/04/15	1.5	2.3	7.5	ND	ND		426876	NA
1,1-Difluoroethane	ETO15	NA	09/04/15	1.5	0.75	2.0	ND	ND		426876	NA
1,2-Dichlorotetrafluoroethane	ETO15	NA	09/04/15	1.5	7.4	21	ND	ND		426876	NA
Chloromethane	ETO15	NA	09/04/15	1.5	0.48	1.6	ND	ND		426876	NA
Vinyl Chloride	ETO15	NA	09/04/15	1.5	1.0	3.9	ND	ND		426876	NA
1,3-Butadiene	ETO15	NA	09/04/15	1.5	0.67	1.7	ND	ND		426876	NA
Bromomethane	ETO15	NA	09/04/15	1.5	1.1	2.9	ND	ND		426876	NA
Chloroethane	ETO15	NA	09/04/15	1.5	0.75	2.0	ND	ND		426876	NA
Trichlorofluoromethane	ETO15	NA	09/04/15	1.5	2.7	8.4	ND	ND		426876	NA
1,1-Dichloroethene	ETO15	NA	09/04/15	1.5	0.92	3.0	ND	ND		426876	NA
Freon 113	ETO15	NA	09/04/15	1.5	1.3	5.8	ND	ND		426876	NA
Carbon Disulfide	ETO15	NA	09/04/15	1.5	1.2	4.7	36.3	11.71		426876	NA
2-Propanol (Isopropyl Alcohol)	ETO15	NA	09/04/15	1.5	1.5	30	ND	ND		426876	NA
Methylene Chloride	ETO15	NA	09/04/15	1.5	0.88	42	ND	ND		426876	NA
trans-1,2-Dichloroethene	ETO15	NA	09/04/15	1.5	0.96	3.0	ND	ND		426876	NA
Hexane	ETO15	NA	09/04/15	1.5	0.79	2.6	59.8	17.09		426876	NA
MTBE	ETO15	NA	09/04/15	1.5	1.3	2.7	12.5	3.47		426876	NA
tert-Butanol	ETO15	NA	09/04/15	1.5	1.4	13	ND	ND		426876	NA
Diisopropyl ether (DIPE)	ETO15	NA	09/04/15	1.5	1.3	3.2	ND	ND		426876	NA
1,1-Dichloroethane	ETO15	NA	09/04/15	1.5	1.1	3.1	ND	ND		426876	NA
ETBE	ETO15	NA	09/04/15	1.5	1.0	3.2	ND	ND		426876	NA
cis-1,2-Dichloroethene	ETO15	NA	09/04/15	1.5	0.81	3.0	ND	ND		426876	NA
Chloroform	ETO15	NA	09/04/15	1.5	1.8	7.4	ND	ND		426876	NA
Vinyl Acetate	ETO15	NA	09/04/15	1.5	0.85	2.6	ND	ND		426876	NA
Carbon Tetrachloride	ETO15	NA	09/04/15	1.5	1.3	4.7	ND	ND		426876	NA
1,1,1-Trichloroethane	ETO15	NA	09/04/15	1.5	1.3	4.1	ND	ND		426876	NA
2-Butanone (MEK)	ETO15	NA	09/04/15	1.5	0.94	2.3	25.5	8.50		426876	NA
Ethyl Acetate	ETO15	NA	09/04/15	1.5	1.1	2.7	ND	ND		426876	NA
Tetrahydrofuran	ETO15	NA	09/04/15	1.5	0.45	2.3	ND	ND		426876	NA
Benzene	ETO15	NA	09/04/15	1.5	1.0	2.4	22.9	7.16		426876	NA
TAME	ETO15	NA	09/04/15	1.5	0.54	3.2	ND	ND		426876	NA
1,2-Dichloroethane (EDC)	ETO15	NA	09/04/15	1.5	1.5	3.1	ND	ND		426876	NA
Trichloroethylene	ETO15	NA	09/04/15	1.5	2.1	8.1	47.1	8.72		426876	NA
1,2-Dichloropropane	ETO15	NA	09/04/15	1.5	2.0	6.9	ND	ND		426876	NA
Bromodichloromethane	ETO15	NA	09/04/15	1.5	1.3	5.0	ND	ND		426876	NA
1,4-Dioxane	ETO15	NA	09/04/15	1.5	1.9	5.4	ND	ND		426876	NA

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Scott Johns
Engeo (San Ramon)

Date Received: 09/03/15
Date Reported: 09/08/15

Client Sample ID:	SV-3	**Lab Sample ID:**	1509029-002A
Project Name/Location:	Former Hayward Ford Site	**Sample Matrix:**	Air
Project Number:	12288.000.000		
Date/Time Sampled:	09/02/15 / 14:11	**Certified Clean WO # :**	
Canister/Tube ID:	6320	**Received PSI :**	11.0
Collection Volume (L):	0.00	**Corrected PSI :**	0.0

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Lab Qualifier	Analytical Batch	Prep Batch
trans-1,3-Dichloropropene	ETO15	NA	09/04/15	1.5	1.3	3.4	ND	ND		426876	NA
Toluene	ETO15	NA	09/04/15	1.5	1.4	2.9	15.8	4.16		426876	NA
4-Methyl-2-Pentanone (MIBK)	ETO15	NA	09/04/15	1.5	1.3	3.1	11.7	2.85		426876	NA
cis-1,3-Dichloropropene	ETO15	NA	09/04/15	1.5	1.7	3.4	ND	ND		426876	NA
Tetrachloroethylene	ETO15	NA	09/04/15	1.5	1.4	5.1	ND	ND		426876	NA
1,1,2-Trichloroethane	ETO15	NA	09/04/15	1.5	1.4	4.1	ND	ND		426876	NA
Dibromochloromethane	ETO15	NA	09/04/15	1.5	2.6	6.4	ND	ND		426876	NA
1,2-Dibromoethane (EDB)	ETO15	NA	09/04/15	1.5	3.1	12	ND	ND		426876	NA
2-Hexanone	ETO15	NA	09/04/15	1.5	1.7	6.2	28.6	6.98		426876	NA
Ethyl Benzene	ETO15	NA	09/04/15	1.5	1.5	3.2	3.61	0.84		426876	NA
Chlorobenzene	ETO15	NA	09/04/15	1.5	1.1	3.5	ND	ND		426876	NA
1,1,1,2-Tetrachloroethane	ETO15	NA	09/04/15	1.5	1.6	5.2	ND	ND		426876	NA
m,p-Xylene	ETO15	NA	09/04/15	1.5	2.4	6.5	19.4	4.51		426876	NA
o-Xylene	ETO15	NA	09/04/15	1.5	1.2	3.2	7.16	1.67		426876	NA
Styrene	ETO15	NA	09/04/15	1.5	1.0	3.3	ND	ND		426876	NA
Bromoform	ETO15	NA	09/04/15	1.5	1.7	7.5	ND	ND		426876	NA
1,1,2,2-Tetrachloroethane	ETO15	NA	09/04/15	1.5	1.1	5.2	ND	ND		426876	NA
4-Ethyl Toluene	ETO15	NA	09/04/15	1.5	1.2	3.7	6.25	1.28		426876	NA
1,3,5-Trimethylbenzene	ETO15	NA	09/04/15	1.5	1.1	3.7	ND	ND		426876	NA
1,2,4-Trimethylbenzene	ETO15	NA	09/04/15	1.5	1.0	3.7	8.60	1.76		426876	NA
1,4-Dichlorobenzene	ETO15	NA	09/04/15	1.5	0.97	4.5	ND	ND		426876	NA
1,3-Dichlorobenzene	ETO15	NA	09/04/15	1.5	1.3	4.5	ND	ND		426876	NA
1,2-Dichlorobenzene	ETO15	NA	09/04/15	1.5	1.4	4.5	ND	ND		426876	NA
Hexachlorobutadiene	ETO15	NA	09/04/15	1.5	3.6	8.3	ND	ND		426876	NA
1,2,4-Trichlorobenzene	ETO15	NA	09/04/15	1.5	5.1	11	ND	ND		426876	NA
Naphthalene	ETO15	NA	09/04/15	1.5	2.2	7.8	ND	ND		426876	NA
(S) 4-Bromofluorobenzene	ETO15	NA	09/04/15	1.5	65	135	115 %			426876	NA

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Scott Johns
Engeo (San Ramon)

Date Received: 09/03/15
Date Reported: 09/08/15

Client Sample ID:	SV-4	**Lab Sample ID:**	1509029-003A
Project Name/Location:	Former Hayward Ford Site	**Sample Matrix:**	Air
Project Number:	12288.000.000		
Date/Time Sampled:	09/02/15 / 16:00	**Certified Clean WO # :**	
Canister/Tube ID:	6324	**Received PSI :**	11.2
Collection Volume (L):	0.00	**Corrected PSI :**	0.0

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Lab Qualifier	Analytical Batch	Prep Batch
Dichlorodifluoromethane	ETO15	NA	09/04/15	1.5	2.3	7.5	ND	ND		426876	NA
1,1-Difluoroethane	ETO15	NA	09/04/15	1.5	0.75	2.0	ND	ND		426876	NA
1,2-Dichlorotetrafluoroethane	ETO15	NA	09/04/15	1.5	7.4	21	ND	ND		426876	NA
Chloromethane	ETO15	NA	09/04/15	1.5	0.48	1.6	ND	ND		426876	NA
Vinyl Chloride	ETO15	NA	09/04/15	1.5	1.0	3.9	ND	ND		426876	NA
1,3-Butadiene	ETO15	NA	09/04/15	1.5	0.67	1.7	7.19	3.27		426876	NA
Bromomethane	ETO15	NA	09/04/15	1.5	1.1	2.9	ND	ND		426876	NA
Chloroethane	ETO15	NA	09/04/15	1.5	0.75	2.0	ND	ND		426876	NA
Trichlorofluoromethane	ETO15	NA	09/04/15	1.5	2.7	8.4	ND	ND		426876	NA
1,1-Dichloroethene	ETO15	NA	09/04/15	1.5	0.92	3.0	ND	ND		426876	NA
Freon 113	ETO15	NA	09/04/15	1.5	1.3	5.8	ND	ND		426876	NA
Carbon Disulfide	ETO15	NA	09/04/15	1.5	1.2	4.7	13.9	4.48		426876	NA
2-Propanol (Isopropyl Alcohol)	ETO15	NA	09/04/15	1.5	1.5	30	ND	ND		426876	NA
Methylene Chloride	ETO15	NA	09/04/15	1.5	0.88	42	ND	ND		426876	NA
Acetone	ETO15	NA	09/04/15	1.5	1.3	29	91.6	38.17		426876	NA
trans-1,2-Dichloroethene	ETO15	NA	09/04/15	1.5	0.96	3.0	ND	ND		426876	NA
Hexane	ETO15	NA	09/04/15	1.5	0.79	2.6	31.8	9.09		426876	NA
MTBE	ETO15	NA	09/04/15	1.5	1.3	2.7	ND	ND		426876	NA
tert-Butanol	ETO15	NA	09/04/15	1.5	1.4	13	ND	ND		426876	NA
Diisopropyl ether (DIPE)	ETO15	NA	09/04/15	1.5	1.3	3.2	ND	ND		426876	NA
1,1-Dichloroethane	ETO15	NA	09/04/15	1.5	1.1	3.1	ND	ND		426876	NA
ETBE	ETO15	NA	09/04/15	1.5	1.0	3.2	ND	ND		426876	NA
cis-1,2-Dichloroethene	ETO15	NA	09/04/15	1.5	0.81	3.0	ND	ND		426876	NA
Chloroform	ETO15	NA	09/04/15	1.5	1.8	7.4	ND	ND		426876	NA
Vinyl Acetate	ETO15	NA	09/04/15	1.5	0.85	2.6	ND	ND		426876	NA
Carbon Tetrachloride	ETO15	NA	09/04/15	1.5	1.3	4.7	ND	ND		426876	NA
1,1,1-Trichloroethane	ETO15	NA	09/04/15	1.5	1.3	4.1	ND	ND		426876	NA
2-Butanone (MEK)	ETO15	NA	09/04/15	1.5	0.94	2.3	16.7	5.57		426876	NA
Ethyl Acetate	ETO15	NA	09/04/15	1.5	1.1	2.7	ND	ND		426876	NA
Tetrahydrofuran	ETO15	NA	09/04/15	1.5	0.45	2.3	ND	ND		426876	NA
Benzene	ETO15	NA	09/04/15	1.5	1.0	2.4	5.81	1.82		426876	NA
TAME	ETO15	NA	09/04/15	1.5	0.54	3.2	ND	ND		426876	NA
1,2-Dichloroethane (EDC)	ETO15	NA	09/04/15	1.5	1.5	3.1	ND	ND		426876	NA
Trichloroethylene	ETO15	NA	09/04/15	1.5	2.1	8.1	ND	ND		426876	NA
1,2-Dichloropropane	ETO15	NA	09/04/15	1.5	2.0	6.9	ND	ND		426876	NA
Bromodichloromethane	ETO15	NA	09/04/15	1.5	1.3	5.0	ND	ND		426876	NA

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Scott Johns
Engeo (San Ramon)

Date Received: 09/03/15
Date Reported: 09/08/15

Client Sample ID:	SV-4	**Lab Sample ID:**	1509029-003A
Project Name/Location:	Former Hayward Ford Site	**Sample Matrix:**	Air
Project Number:	12288.000.000		
Date/Time Sampled:	09/02/15 / 16:00	**Certified Clean WO # :**	
Canister/Tube ID:	6324	**Received PSI :**	11.2
Collection Volume (L):	0.00	**Corrected PSI :**	0.0

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Lab Qualifier	Analytical Batch	Prep Batch
1,4-Dioxane	ETO15	NA	09/04/15	1.5	1.9	5.4	ND	ND		426876	NA
trans-1,3-Dichloropropene	ETO15	NA	09/04/15	1.5	1.3	3.4	ND	ND		426876	NA
Toluene	ETO15	NA	09/04/15	1.5	1.4	2.9	8.72	2.29		426876	NA
4-Methyl-2-Pentanone (MIBK)	ETO15	NA	09/04/15	1.5	1.3	3.1	82.2	20.05		426876	NA
cis-1,3-Dichloropropene	ETO15	NA	09/04/15	1.5	1.7	3.4	ND	ND		426876	NA
Tetrachloroethylene	ETO15	NA	09/04/15	1.5	1.4	5.1	ND	ND		426876	NA
1,1,2-Trichloroethane	ETO15	NA	09/04/15	1.5	1.4	4.1	ND	ND		426876	NA
Dibromochloromethane	ETO15	NA	09/04/15	1.5	2.6	6.4	ND	ND		426876	NA
1,2-Dibromoethane (EDB)	ETO15	NA	09/04/15	1.5	3.1	12	ND	ND		426876	NA
2-Hexanone	ETO15	NA	09/04/15	1.5	1.7	6.2	ND	ND		426876	NA
Ethyl Benzene	ETO15	NA	09/04/15	1.5	1.5	3.2	ND	ND		426876	NA
Chlorobenzene	ETO15	NA	09/04/15	1.5	1.1	3.5	ND	ND		426876	NA
1,1,1,2-Tetrachloroethane	ETO15	NA	09/04/15	1.5	1.6	5.2	ND	ND		426876	NA
m,p-Xylene	ETO15	NA	09/04/15	1.5	2.4	6.5	17.8	4.14		426876	NA
o-Xylene	ETO15	NA	09/04/15	1.5	1.2	3.2	8.32	1.93		426876	NA
Styrene	ETO15	NA	09/04/15	1.5	1.0	3.3	ND	ND		426876	NA
Bromoform	ETO15	NA	09/04/15	1.5	1.7	7.5	ND	ND		426876	NA
1,1,2,2-Tetrachloroethane	ETO15	NA	09/04/15	1.5	1.1	5.2	ND	ND		426876	NA
4-Ethyl Toluene	ETO15	NA	09/04/15	1.5	1.2	3.7	ND	ND		426876	NA
1,3,5-Trimethylbenzene	ETO15	NA	09/04/15	1.5	1.1	3.7	ND	ND		426876	NA
1,2,4-Trimethylbenzene	ETO15	NA	09/04/15	1.5	1.0	3.7	ND	ND		426876	NA
1,4-Dichlorobenzene	ETO15	NA	09/04/15	1.5	0.97	4.5	ND	ND		426876	NA
1,3-Dichlorobenzene	ETO15	NA	09/04/15	1.5	1.3	4.5	ND	ND		426876	NA
1,2-Dichlorobenzene	ETO15	NA	09/04/15	1.5	1.4	4.5	ND	ND		426876	NA
Hexachlorobutadiene	ETO15	NA	09/04/15	1.5	3.6	8.3	ND	ND		426876	NA
1,2,4-Trichlorobenzene	ETO15	NA	09/04/15	1.5	5.1	11	ND	ND		426876	NA
Naphthalene	ETO15	NA	09/04/15	1.5	2.2	7.8	ND	ND		426876	NA
(S) 4-Bromofluorobenzene	ETO15	NA	09/04/15	1.5	65	135	132 %			426876	NA

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Scott Johns
Engeo (San Ramon)

Date Received: 09/03/15
Date Reported: 09/08/15

Client Sample ID:	SV-5	**Lab Sample ID:**	1509029-004A
Project Name/Location:	Former Hayward Ford Site	**Sample Matrix:**	Air
Project Number:	12288.000.000		
Date/Time Sampled:	09/02/15 / 15:30	**Certified Clean WO # :**	
Canister/Tube ID:	6335	**Received PSI :**	11.9
Collection Volume (L):	0.00	**Corrected PSI :**	0.0

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Lab Qualifier	Analytical Batch	Prep Batch
The results shown below are reported using their MDL.											
Dichlorodifluoromethane	ETO15	NA	09/02/15	50	76	250	ND	ND		426879	NA
1,1-Difluoroethane	ETO15	NA	09/02/15	50	25	68	ND	ND		426879	NA
1,2-Dichlorotetrafluoroethane	ETO15	NA	09/02/15	50	250	700	ND	ND		426879	NA
Chloromethane	ETO15	NA	09/02/15	50	16	53	ND	ND		426879	NA
Vinyl Chloride	ETO15	NA	09/02/15	50	33	130	ND	ND		426879	NA
1,3-Butadiene	ETO15	NA	09/02/15	50	22	55	ND	ND		426879	NA
Bromomethane	ETO15	NA	09/02/15	50	36	98	ND	ND		426879	NA
Chloroethane	ETO15	NA	09/02/15	50	25	65	ND	ND		426879	NA
Trichlorofluoromethane	ETO15	NA	09/02/15	50	90	280	ND	ND		426879	NA
1,1-Dichloroethene	ETO15	NA	09/02/15	50	31	100	ND	ND		426879	NA
Freon 113	ETO15	NA	09/02/15	50	42	190	ND	ND		426879	NA
Carbon Disulfide	ETO15	NA	09/02/15	50	41	160	ND	ND		426879	NA
2-Propanol (Isopropyl Alcohol)	ETO15	NA	09/02/15	50	49	1000	ND	ND		426879	NA
Methylene Chloride	ETO15	NA	09/02/15	50	29	1400	ND	ND		426879	NA
Acetone	ETO15	NA	09/02/15	50	44	960	217	90.42	J	426879	NA
trans-1,2-Dichloroethene	ETO15	NA	09/02/15	50	32	100	ND	ND		426879	NA
Hexane	ETO15	NA	09/02/15	50	26	88	ND	ND		426879	NA
MTBE	ETO15	NA	09/02/15	50	43	90	ND	ND		426879	NA
tert-Butanol	ETO15	NA	09/02/15	50	46	420	ND	ND		426879	NA
Diisopropyl ether (DIPE)	ETO15	NA	09/02/15	50	44	110	ND	ND		426879	NA
1,1-Dichloroethane	ETO15	NA	09/02/15	50	38	100	ND	ND		426879	NA
ETBE	ETO15	NA	09/02/15	50	34	110	ND	ND		426879	NA
cis-1,2-Dichloroethene	ETO15	NA	09/02/15	50	27	100	ND	ND		426879	NA
Chloroform	ETO15	NA	09/02/15	50	62	250	ND	ND		426879	NA
Vinyl Acetate	ETO15	NA	09/02/15	50	28	88	ND	ND		426879	NA
Carbon Tetrachloride	ETO15	NA	09/02/15	50	43	160	ND	ND		426879	NA
1,1,1-Trichloroethane	ETO15	NA	09/02/15	50	42	140	ND	ND		426879	NA
2-Butanone (MEK)	ETO15	NA	09/02/15	50	31	75	ND	ND		426879	NA
Ethyl Acetate	ETO15	NA	09/02/15	50	37	90	ND	ND		426879	NA
Tetrahydrofuran	ETO15	NA	09/02/15	50	15	75	ND	ND		426879	NA
Benzene	ETO15	NA	09/02/15	50	34	80	ND	ND		426879	NA
TAME	ETO15	NA	09/02/15	50	18	110	ND	ND		426879	NA
1,2-Dichloroethane (EDC)	ETO15	NA	09/02/15	50	49	100	ND	ND		426879	NA
Trichloroethylene	ETO15	NA	09/02/15	50	69	270	ND	ND		426879	NA
1,2-Dichloropropane	ETO15	NA	09/02/15	50	66	230	ND	ND		426879	NA

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Scott Johns
Engeo (San Ramon)

Date Received: 09/03/15
Date Reported: 09/08/15

Client Sample ID:	SV-5	**Lab Sample ID:**	1509029-004A
Project Name/Location:	Former Hayward Ford Site	**Sample Matrix:**	Air
Project Number:	12288.000.000		
Date/Time Sampled:	09/02/15 / 15:30	**Certified Clean WO # :**	
Canister/Tube ID:	6335	**Received PSI :**	11.9
Collection Volume (L):	0.00	**Corrected PSI :**	0.0

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Lab Qualifier	Analytical Batch	Prep Batch
Bromodichloromethane	ETO15	NA	09/02/15	50	44	170	ND	ND		426879	NA
1,4-Dioxane	ETO15	NA	09/02/15	50	62	180	ND	ND		426879	NA
trans-1,3-Dichloropropene	ETO15	NA	09/02/15	50	43	110	ND	ND		426879	NA
Toluene	ETO15	NA	09/02/15	50	48	95	ND	ND		426879	NA
4-Methyl-2-Pentanone (MIBK)	ETO15	NA	09/02/15	50	42	100	ND	ND		426879	NA
cis-1,3-Dichloropropene	ETO15	NA	09/02/15	50	56	110	ND	ND		426879	NA
Tetrachloroethylene	ETO15	NA	09/02/15	50	45	170	ND	ND		426879	NA
1,1,2-Trichloroethane	ETO15	NA	09/02/15	50	46	140	ND	ND		426879	NA
Dibromochloromethane	ETO15	NA	09/02/15	50	87	210	ND	ND		426879	NA
1,2-Dibromoethane (EDB)	ETO15	NA	09/02/15	50	100	390	ND	ND		426879	NA

NOTE: The reporting limits were raised due to the high concentration of non-target compounds.

The results shown below are reported using their MDL.

2-Hexanone	ETO15	NA	09/02/15	50	56	210	ND	ND		426879	NA
Ethyl Benzene	ETO15	NA	09/02/15	50	50	110	ND	ND		426879	NA
Chlorobenzene	ETO15	NA	09/02/15	50	36	120	ND	ND		426879	NA
1,1,1,2-Tetrachloroethane	ETO15	NA	09/02/15	50	52	170	ND	ND		426879	NA
m,p-Xylene	ETO15	NA	09/02/15	50	81	220	ND	ND		426879	NA
o-Xylene	ETO15	NA	09/02/15	50	40	110	ND	ND		426879	NA
Styrene	ETO15	NA	09/02/15	50	34	110	ND	ND		426879	NA
Bromoform	ETO15	NA	09/02/15	50	55	250	ND	ND		426879	NA
1,1,2,2-Tetrachloroethane	ETO15	NA	09/02/15	50	35	170	ND	ND		426879	NA
4-Ethyl Toluene	ETO15	NA	09/02/15	50	41	120	ND	ND		426879	NA
1,3,5-Trimethylbenzene	ETO15	NA	09/02/15	50	38	120	ND	ND		426879	NA
1,2,4-Trimethylbenzene	ETO15	NA	09/02/15	50	34	120	ND	ND		426879	NA
1,4-Dichlorobenzene	ETO15	NA	09/02/15	50	32	150	ND	ND		426879	NA
1,3-Dichlorobenzene	ETO15	NA	09/02/15	50	42	150	ND	ND		426879	NA
1,2-Dichlorobenzene	ETO15	NA	09/02/15	50	45	150	ND	ND		426879	NA
Hexachlorobutadiene	ETO15	NA	09/02/15	50	120	280	ND	ND		426879	NA
1,2,4-Trichlorobenzene	ETO15	NA	09/02/15	50	170	370	ND	ND		426879	NA
Naphthalene	ETO15	NA	09/02/15	50	73	260	ND	ND		426879	NA
(S) 4-Bromofluorobenzene	ETO15	NA	09/02/15	50	65	135	99.1 %			426879	NA

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Scott Johns
Engeo (San Ramon)

Date Received: 09/03/15
Date Reported: 09/08/15

Client Sample ID:	SV-6	**Lab Sample ID:**	1509029-005A
Project Name/Location:	Former Hayward Ford Site	**Sample Matrix:**	Air
Project Number:	12288.000.000		
Date/Time Sampled:	09/02/15 / 14:45	**Certified Clean WO # :**	
Canister/Tube ID:	A7545	**Received PSI :**	11.7
Collection Volume (L):	0.00	**Corrected PSI :**	0.0

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Lab Qualifier	Analytical Batch	Prep Batch
Dichlorodifluoromethane	ETO15	NA	09/03/15	1.5	2.3	7.5	ND	ND		426875	NA
1,1-Difluoroethane	ETO15	NA	09/03/15	1.5	0.75	2.0	ND	ND		426875	NA
1,2-Dichlorotetrafluoroethane	ETO15	NA	09/03/15	1.5	7.4	21	ND	ND		426875	NA
Chloromethane	ETO15	NA	09/03/15	1.5	0.48	1.6	ND	ND		426875	NA
Vinyl Chloride	ETO15	NA	09/03/15	1.5	1.0	3.9	ND	ND		426875	NA
1,3-Butadiene	ETO15	NA	09/03/15	1.5	0.67	1.7	ND	ND		426875	NA
Bromomethane	ETO15	NA	09/03/15	1.5	1.1	2.9	ND	ND		426875	NA
Chloroethane	ETO15	NA	09/03/15	1.5	0.75	2.0	ND	ND		426875	NA
Trichlorofluoromethane	ETO15	NA	09/03/15	1.5	2.7	8.4	ND	ND		426875	NA
1,1-Dichloroethene	ETO15	NA	09/03/15	1.5	0.92	3.0	ND	ND		426875	NA
Freon 113	ETO15	NA	09/03/15	1.5	1.3	5.8	ND	ND		426875	NA
Carbon Disulfide	ETO15	NA	09/03/15	1.5	1.2	4.7	41.5	13.39		426875	NA
2-Propanol (Isopropyl Alcohol)	ETO15	NA	09/03/15	1.5	1.5	30	ND	ND		426875	NA
Methylene Chloride	ETO15	NA	09/03/15	1.5	0.88	42	ND	ND		426875	NA
Acetone	ETO15	NA	09/03/15	1.5	1.3	29	220	91.67		426875	NA
trans-1,2-Dichloroethene	ETO15	NA	09/03/15	1.5	0.96	3.0	ND	ND		426875	NA
Hexane	ETO15	NA	09/03/15	1.5	0.79	2.6	34.8	9.94		426875	NA
MTBE	ETO15	NA	09/03/15	1.5	1.3	2.7	298	82.78		426875	NA
tert-Butanol	ETO15	NA	09/03/15	1.5	1.4	13	ND	ND		426875	NA
Diisopropyl ether (DIPE)	ETO15	NA	09/03/15	1.5	1.3	3.2	ND	ND		426875	NA
1,1-Dichloroethane	ETO15	NA	09/03/15	1.5	1.1	3.1	ND	ND		426875	NA
ETBE	ETO15	NA	09/03/15	1.5	1.0	3.2	ND	ND		426875	NA
cis-1,2-Dichloroethene	ETO15	NA	09/03/15	1.5	0.81	3.0	ND	ND		426875	NA
Chloroform	ETO15	NA	09/03/15	1.5	1.8	7.4	ND	ND		426875	NA
Vinyl Acetate	ETO15	NA	09/03/15	1.5	0.85	2.6	ND	ND		426875	NA
Carbon Tetrachloride	ETO15	NA	09/03/15	1.5	1.3	4.7	ND	ND		426875	NA
1,1,1-Trichloroethane	ETO15	NA	09/03/15	1.5	1.3	4.1	ND	ND		426875	NA
2-Butanone (MEK)	ETO15	NA	09/03/15	1.5	0.94	2.3	10.2	3.40		426875	NA
Ethyl Acetate	ETO15	NA	09/03/15	1.5	1.1	2.7	ND	ND		426875	NA
Tetrahydrofuran	ETO15	NA	09/03/15	1.5	0.45	2.3	ND	ND		426875	NA
Benzene	ETO15	NA	09/03/15	1.5	1.0	2.4	11.7	3.66		426875	NA
TAME	ETO15	NA	09/03/15	1.5	0.54	3.2	ND	ND		426875	NA
1,2-Dichloroethane (EDC)	ETO15	NA	09/03/15	1.5	1.5	3.1	ND	ND		426875	NA
Trichloroethylene	ETO15	NA	09/03/15	1.5	2.1	8.1	ND	ND		426875	NA
1,2-Dichloropropane	ETO15	NA	09/03/15	1.5	2.0	6.9	ND	ND		426875	NA
Bromodichloromethane	ETO15	NA	09/03/15	1.5	1.3	5.0	ND	ND		426875	NA

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Scott Johns
Engeo (San Ramon)

Date Received: 09/03/15
Date Reported: 09/08/15

Client Sample ID:	SV-6	**Lab Sample ID:**	1509029-005A
Project Name/Location:	Former Hayward Ford Site	**Sample Matrix:**	Air
Project Number:	12288.000.000		
Date/Time Sampled:	09/02/15 / 14:45	**Certified Clean WO # :**	
Canister/Tube ID:	A7545	**Received PSI :**	11.7
Collection Volume (L):	0.00	**Corrected PSI :**	0.0

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Lab Qualifier	Analytical Batch	Prep Batch
1,4-Dioxane	ETO15	NA	09/03/15	1.5	1.9	5.4	ND	ND		426875	NA
trans-1,3-Dichloropropene	ETO15	NA	09/03/15	1.5	1.3	3.4	ND	ND		426875	NA
Toluene	ETO15	NA	09/03/15	1.5	1.4	2.9	7.30	1.92		426875	NA
4-Methyl-2-Pentanone (MIBK)	ETO15	NA	09/03/15	1.5	1.3	3.1	ND	ND		426875	NA
cis-1,3-Dichloropropene	ETO15	NA	09/03/15	1.5	1.7	3.4	ND	ND		426875	NA
Tetrachloroethylene	ETO15	NA	09/03/15	1.5	1.4	5.1	ND	ND		426875	NA
1,1,2-Trichloroethane	ETO15	NA	09/03/15	1.5	1.4	4.1	ND	ND		426875	NA
Dibromochloromethane	ETO15	NA	09/03/15	1.5	2.6	6.4	ND	ND		426875	NA
1,2-Dibromoethane (EDB)	ETO15	NA	09/03/15	1.5	3.1	12	ND	ND		426875	NA
2-Hexanone	ETO15	NA	09/03/15	1.5	1.7	6.2	13.3	3.24		426875	NA
Ethyl Benzene	ETO15	NA	09/03/15	1.5	1.5	3.2	ND	ND		426875	NA
Chlorobenzene	ETO15	NA	09/03/15	1.5	1.1	3.5	ND	ND		426875	NA
1,1,1,2-Tetrachloroethane	ETO15	NA	09/03/15	1.5	1.6	5.2	ND	ND		426875	NA
m,p-Xylene	ETO15	NA	09/03/15	1.5	2.4	6.5	23.4	5.44		426875	NA
o-Xylene	ETO15	NA	09/03/15	1.5	1.2	3.2	6.84	1.59		426875	NA
Styrene	ETO15	NA	09/03/15	1.5	1.0	3.3	ND	ND		426875	NA
Bromoform	ETO15	NA	09/03/15	1.5	1.7	7.5	ND	ND		426875	NA
1,1,2,2-Tetrachloroethane	ETO15	NA	09/03/15	1.5	1.1	5.2	ND	ND		426875	NA
4-Ethyl Toluene	ETO15	NA	09/03/15	1.5	1.2	3.7	ND	ND		426875	NA
1,3,5-Trimethylbenzene	ETO15	NA	09/03/15	1.5	1.1	3.7	ND	ND		426875	NA
1,2,4-Trimethylbenzene	ETO15	NA	09/03/15	1.5	1.0	3.7	ND	ND		426875	NA
1,4-Dichlorobenzene	ETO15	NA	09/03/15	1.5	0.97	4.5	ND	ND		426875	NA
1,3-Dichlorobenzene	ETO15	NA	09/03/15	1.5	1.3	4.5	ND	ND		426875	NA
1,2-Dichlorobenzene	ETO15	NA	09/03/15	1.5	1.4	4.5	ND	ND		426875	NA
Hexachlorobutadiene	ETO15	NA	09/03/15	1.5	3.6	8.3	ND	ND		426875	NA
1,2,4-Trichlorobenzene	ETO15	NA	09/03/15	1.5	5.1	11	ND	ND		426875	NA
Naphthalene	ETO15	NA	09/03/15	1.5	2.2	7.8	ND	ND		426875	NA
(S) 4-Bromofluorobenzene	ETO15	NA	09/03/15	1.5	65	135	97.8 %			426875	NA

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	1509029	**Prep Method:**	NA	**Prep Date:**	NA	**Prep Batch:**	NA
Matrix:	Air	**Analytical Method:**	ETO15	**Analyzed Date:**	09/03/15	**Analytical Batch:**	426875
Units:	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Dichlorodifluoromethane	0.30	1.00	ND		
1,1-Difluoroethane	0.18	10.0	ND		
1,2-Dichlorotetrafluoroethane	0.70	2.00	ND		
Chloromethane	0.15	0.500	ND		
Vinyl Chloride	0.26	1.00	ND		
1,3-Butadiene	0.20	0.500	ND		
Bromomethane	0.18	0.500	ND		
Chloroethane	0.19	0.500	ND		
Trichlorofluoromethane	0.32	1.00	ND		
1,1-Dichloroethene	0.15	0.500	ND		
Freon 113	0.11	0.500	ND		
Carbon Disulfide	0.26	1.00	ND		
2-Propanol (Isopropyl Alcohol)	0.39	10.0	ND		
Methylene Chloride	0.17	8.00	ND		
Acetone	0.37	8.00	ND		
trans-1,2-Dichloroethene	0.16	0.500	ND		
Hexane	0.15	0.500	ND		
MTBE	0.24	0.500	ND		
tert-Butanol	0.22	2.00	ND		
Diisopropyl ether (DIPE)	0.21	0.500	ND		
1,1-Dichloroethane	0.18	0.500	ND		
ETBE	0.16	0.500	ND		
cis-1,2-Dichloroethene	0.13	0.500	ND		
Chloroform	0.25	1.00	ND		
Vinyl Acetate	0.16	0.500	ND		
Carbon Tetrachloride	0.14	0.500	ND		
1,1,1-Trichloroethane	0.15	0.500	ND		
2-Butanone (MEK)	0.21	0.500	ND		
Ethyl Acetate	0.21	0.500	ND		
Tetrahydrofuran	0.10	0.500	ND		
Benzene	0.21	0.500	ND		
TAME	0.086	0.500	ND		
1,2-Dichloroethane (EDC)	0.24	0.500	ND		
Trichloroethylene	0.26	1.00	ND		
1,2-Dichloropropane	0.29	1.00	ND		
Bromodichloromethane	0.13	0.500	ND		
1,4-Dioxane	0.35	1.00	ND		
trans-1,3-Dichloropropene	0.19	0.500	ND		
Toluene	0.25	0.500	ND		
4-Methyl-2-Pentanone (MIBK)	0.21	0.500	ND		
cis-1,3-Dichloropropene	0.25	0.500	ND		

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	1509029	**Prep Method:**	NA	**Prep Date:**	NA	**Prep Batch:**	NA
Matrix:	Air	**Analytical Method:**	ETO15	**Analyzed Date:**	09/03/15	**Analytical Batch:**	426875
Units:	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Tetrachloroethylene	0.13	0.500	ND		
1,1,2-Trichloroethane	0.17	0.500	ND		
Dibromochloromethane	0.20	0.500	ND		
1,2-Dibromoethane (EDB)	0.27	1.00	ND		
2-Hexanone	0.27	1.00	ND		
Ethyl Benzene	0.23	0.500	ND		
Chlorobenzene	0.15	0.500	ND		
1,1,1,2-Tetrachloroethane	0.15	0.500	ND		
m,p-Xylene	0.38	1.00	ND		
o-Xylene	0.19	0.500	ND		
Styrene	0.16	0.500	ND		
Bromoform	0.11	0.500	ND		
1,1,2,2-Tetrachloroethane	0.10	0.500	ND		
4-Ethyl Toluene	0.17	0.500	ND		
1,3,5-Trimethylbenzene	0.15	0.500	ND		
1,2,4-Trimethylbenzene	0.14	0.500	ND		
1,4-Dichlorobenzene	0.11	0.500	ND		
1,3-Dichlorobenzene	0.14	0.500	ND		
1,2-Dichlorobenzene	0.15	0.500	ND		
Hexachlorobutadiene	0.22	0.500	ND		
1,2,4-Trichlorobenzene	0.46	1.00	ND		
Naphthalene	0.28	1.00	ND		
(S) 4-Bromofluorobenzene			107		

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	1509029	**Prep Method:**	NA	**Prep Date:**	NA	**Prep Batch:**	NA
Matrix:	Air	**Analytical Method:**	ETO15	**Analyzed Date:**	09/04/15	**Analytical Batch:**	426876
Units:	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Dichlorodifluoromethane	0.30	1.00	ND	
1,1-Difluoroethane	0.18	10.0	ND	
1,2-Dichlorotetrafluoroethane	0.70	2.00	ND	
Chloromethane	0.15	0.500	ND	
Vinyl Chloride	0.26	1.00	ND	
1,3-Butadiene	0.20	0.500	ND	
Bromomethane	0.18	0.500	ND	
Chloroethane	0.19	0.500	ND	
Trichlorofluoromethane	0.32	1.00	ND	
1,1-Dichloroethene	0.15	0.500	ND	
Freon 113	0.11	0.500	ND	
Carbon Disulfide	0.26	1.00	ND	
2-Propanol (Isopropyl Alcohol)	0.39	10.0	ND	
Methylene Chloride	0.17	8.00	ND	
Acetone	0.37	8.00	ND	
trans-1,2-Dichloroethene	0.16	0.500	ND	
Hexane	0.15	0.500	ND	
MTBE	0.24	0.500	ND	
tert-Butanol	0.22	2.00	ND	
Diisopropyl ether (DIPE)	0.21	0.500	ND	
1,1-Dichloroethane	0.18	0.500	ND	
ETBE	0.16	0.500	ND	
cis-1,2-Dichloroethene	0.13	0.500	ND	
Chloroform	0.25	1.00	ND	
Vinyl Acetate	0.16	0.500	ND	
Carbon Tetrachloride	0.14	0.500	ND	
1,1,1-Trichloroethane	0.15	0.500	ND	
2-Butanone (MEK)	0.21	0.500	ND	
Ethyl Acetate	0.21	0.500	ND	
Tetrahydrofuran	0.10	0.500	ND	
Benzene	0.21	0.500	ND	
TAME	0.086	0.500	ND	
1,2-Dichloroethane (EDC)	0.24	0.500	ND	
Trichloroethylene	0.26	1.00	ND	
1,2-Dichloropropane	0.29	1.00	ND	
Bromodichloromethane	0.13	0.500	ND	
1,4-Dioxane	0.35	1.00	ND	
trans-1,3-Dichloropropene	0.19	0.500	ND	
Toluene	0.25	0.500	ND	
4-Methyl-2-Pentanone (MIBK)	0.21	0.500	ND	
cis-1,3-Dichloropropene	0.25	0.500	ND	

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	1509029	**Prep Method:**	NA	**Prep Date:**	NA	**Prep Batch:**	NA
Matrix:	Air	**Analytical Method:**	ETO15	**Analyzed Date:**	09/04/15	**Analytical Batch:**	426876
Units:	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Tetrachloroethylene	0.13	0.500	ND		
1,1,2-Trichloroethane	0.17	0.500	ND		
Dibromochloromethane	0.20	0.500	ND		
1,2-Dibromoethane (EDB)	0.27	1.00	ND		
2-Hexanone	0.27	1.00	ND		
Ethyl Benzene	0.23	0.500	ND		
Chlorobenzene	0.15	0.500	ND		
1,1,1,2-Tetrachloroethane	0.15	0.500	ND		
m,p-Xylene	0.38	1.00	ND		
o-Xylene	0.19	0.500	ND		
Styrene	0.16	0.500	ND		
Bromoform	0.11	0.500	ND		
1,1,2,2-Tetrachloroethane	0.10	0.500	ND		
4-Ethyl Toluene	0.17	0.500	ND		
1,3,5-Trimethylbenzene	0.15	0.500	ND		
1,2,4-Trimethylbenzene	0.14	0.500	ND		
1,4-Dichlorobenzene	0.11	0.500	ND		
1,3-Dichlorobenzene	0.14	0.500	ND		
1,2-Dichlorobenzene	0.15	0.500	ND		
Hexachlorobutadiene	0.22	0.500	ND		
1,2,4-Trichlorobenzene	0.46	1.00	ND		
Naphthalene	0.28	1.00	ND		
(S) 4-Bromofluorobenzene			103		

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	1509029	**Prep Method:**	NA	**Prep Date:**	NA	**Prep Batch:**	NA
Matrix:	Air	**Analytical Method:**	ETO15	**Analyzed Date:**	09/02/15	**Analytical Batch:**	426879
Units:	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Dichlorodifluoromethane	0.30	1.00	ND	
1,1-Difluoroethane	0.18	10.0	ND	
1,2-Dichlorotetrafluoroethane	0.70	2.00	ND	
Chloromethane	0.15	0.500	ND	
Vinyl Chloride	0.26	1.00	ND	
1,3-Butadiene	0.20	0.500	ND	
Bromomethane	0.18	0.500	ND	
Chloroethane	0.19	0.500	ND	
Trichlorofluoromethane	0.32	1.00	ND	
1,1-Dichloroethene	0.15	0.500	ND	
Freon 113	0.11	0.500	ND	
Carbon Disulfide	0.26	1.00	ND	
2-Propanol (Isopropyl Alcohol)	0.39	10.0	ND	
Methylene Chloride	0.17	8.00	ND	
Acetone	0.37	8.00	ND	
trans-1,2-Dichloroethene	0.16	0.500	ND	
Hexane	0.15	0.500	ND	
MTBE	0.24	0.500	ND	
tert-Butanol	0.22	2.00	ND	
Diisopropyl ether (DIPE)	0.21	0.500	ND	
1,1-Dichloroethane	0.18	0.500	ND	
ETBE	0.16	0.500	ND	
cis-1,2-Dichloroethene	0.13	0.500	ND	
Chloroform	0.25	1.00	ND	
Vinyl Acetate	0.16	0.500	ND	
Carbon Tetrachloride	0.14	0.500	ND	
1,1,1-Trichloroethane	0.15	0.500	ND	
2-Butanone (MEK)	0.21	0.500	ND	
Ethyl Acetate	0.21	0.500	ND	
Tetrahydrofuran	0.10	0.500	ND	
Benzene	0.21	0.500	ND	
TAME	0.086	0.500	ND	
1,2-Dichloroethane (EDC)	0.24	0.500	ND	
Trichloroethylene	0.26	1.00	ND	
1,2-Dichloropropane	0.29	1.00	ND	
Bromodichloromethane	0.13	0.500	ND	
1,4-Dioxane	0.35	1.00	ND	
trans-1,3-Dichloropropene	0.19	0.500	ND	
Toluene	0.25	0.500	ND	
4-Methyl-2-Pentanone (MIBK)	0.21	0.500	ND	
cis-1,3-Dichloropropene	0.25	0.500	ND	

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	1509029	**Prep Method:**	NA	**Prep Date:**	NA	**Prep Batch:**	NA
Matrix:	Air	**Analytical Method:**	ETO15	**Analyzed Date:**	09/02/15	**Analytical Batch:**	426879
Units:	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Tetrachloroethylene	0.13	0.500	ND	
1,1,2-Trichloroethane	0.17	0.500	ND	
Dibromochloromethane	0.20	0.500	ND	
1,2-Dibromoethane (EDB)	0.27	1.00	ND	
2-Hexanone	0.27	1.00	ND	
Ethyl Benzene	0.23	0.500	ND	
Chlorobenzene	0.15	0.500	ND	
1,1,1,2-Tetrachloroethane	0.15	0.500	ND	
m,p-Xylene	0.38	1.00	ND	
o-Xylene	0.19	0.500	ND	
Styrene	0.16	0.500	ND	
Bromoform	0.11	0.500	ND	
1,1,2,2-Tetrachloroethane	0.10	0.500	ND	
4-Ethyl Toluene	0.17	0.500	ND	
1,3,5-Trimethylbenzene	0.15	0.500	ND	
1,2,4-Trimethylbenzene	0.14	0.500	ND	
1,4-Dichlorobenzene	0.11	0.500	ND	
1,3-Dichlorobenzene	0.14	0.500	ND	
1,2-Dichlorobenzene	0.15	0.500	ND	
Hexachlorobutadiene	0.22	0.500	ND	
1,2,4-Trichlorobenzene	0.46	1.00	ND	
Naphthalene	0.28	1.00	ND	
(S) 4-Bromofluorobenzene			102	

Torrent LABORATORY, INC.

LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	1509029	**Prep Method:**	NA	**Prep Date:**	NA	**Prep Batch:**	NA
Matrix:	Air	**Analytical Method:**	ETO15	**Analyzed Date:**	09/03/15	**Analytical Batch:**	426875
Units:	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	0.15	0.500	ND	8	116	111	3.86	65 - 135	30	
Benzene	0.21	0.500	ND	8	101	103	2.33	65 - 135	30	
Trichloroethylene	0.26	1.00	ND	8	106	114	7.85	65 - 135	30	
Toluene	0.25	0.500	ND	8	108	121	11.7	65 - 135	30	
Chlorobenzene	0.15	0.500	ND	8	106	120	12.1	65 - 135	30	
(S) 4-Bromofluorobenzene			ND	8	111	125		65 - 135		

Work Order:	1509029	**Prep Method:**	NA	**Prep Date:**	NA	**Prep Batch:**	NA
Matrix:	Air	**Analytical Method:**	ETO15	**Analyzed Date:**	09/04/15	**Analytical Batch:**	426876
Units:	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	0.15	0.500	ND	8	111	120	7.48	65 - 135	30	
Benzene	0.21	0.500	ND	8	103	106	3.24	65 - 135	30	
Trichloroethylene	0.26	1.00	ND	8	121	118	1.78	65 - 135	30	
Toluene	0.25	0.500	ND	8	128	121	5.52	65 - 135	30	
Chlorobenzene	0.15	0.500	ND	8	124	125	0.705	65 - 135	30	
(S) 4-Bromofluorobenzene			ND	8	138	125		65 - 135		S

Work Order:	1509029	**Prep Method:**	NA	**Prep Date:**	NA	**Prep Batch:**	NA
Matrix:	Air	**Analytical Method:**	ETO15	**Analyzed Date:**	09/02/15	**Analytical Batch:**	426879
Units:	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	0.15	0.500	ND	8	106	106	0.000	65 - 135	30	
Benzene	0.21	0.500	ND	8	107	96.1	10.2	65 - 135	30	
Trichloroethylene	0.26	1.00	ND	8	107	105	2.60	65 - 135	30	
Toluene	0.25	0.500	ND	8	107	112	5.02	65 - 135	30	
Chlorobenzene	0.15	0.500	ND	8	110	110	0.796	65 - 135	30	
(S) 4-Bromofluorobenzene			ND	8	106	115		65 - 135		

Laboratory Qualifiers and Definitions

DEFINITIONS:

Accuracy/Bias (% Recovery) - The closeness of agreement between an observed value and an accepted reference value.
Blank (Method/Preparation Blank) -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.
Duplicate - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)
Laboratory Control Sample (LCS ad LCSD) - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.
Matrix - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)
Matrix Spike (MS/MSD) - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.
Method Detection Limit (MDL) - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero
Practical Quantitation Limit (PQL) - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.
Precision (%RPD) - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates
Surrogate (S) or (Surr) - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis
Tentatively Identified Compound (TIC) - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.
Units: the unit of measure used to express the reported result - **mg/L** and ***mg/Kg*** (equivalent to PPM - parts per million in **liquid** and ***solid***), **ug/L** and ***ug/Kg*** (equivalent to PPB - parts per billion in **liquid** and ***solid***), **ug/m3**, ***mg.m3***, **ppbv** and ***ppmv*** (all units of measure for reporting concentrations in air), **%** (equivalent to 10000 ppm or 1,000,000 ppb), **ug/Wipe** (concentration found on the surface of a single Wipe usually taken over a 100cm2 surface)

LABORATORY QUALIFIERS:

B - Indicates when the anlayte is found in the associated method or preparation blank
D - Surrogate is not recoverable due to the necessary dilution of the sample
E - Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.
H- Indicates that the recommended holding time for the analyte or compound has been exceeded
J- Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative
NA - Not Analyzed
N/A - Not Applicable
NR - Not recoverable - a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added
R- The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts
S- Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case narrative
X -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.

Sample Receipt Checklist

Client Name: Engeo (San Ramon)

Project Name: Former Hayward Ford Site

Work Order No.: 1509029

Date and Time Received: 9/3/2015 19:40

Received By: pd

Physically Logged By: ldi

Checklist Completed By: ldi

Carrier Name: Client Drop Off

Chain of Custody (COC) Information

Chain of custody present?	Yes
Chain of custody signed when relinquished and received?	Yes
Chain of custody agrees with sample labels?	Yes
Custody seals intact on sample bottles?	Not Present

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Not Present
Shipping Container/Cooler In Good Condition?	Yes
Samples in proper container/bottle?	Yes
Samples containers intact?	Yes
Sufficient sample volume for indicated test?	Yes

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes		
Container/Temp Blank temperature in compliance?	Yes	Temperature:	°C
Water-VOA vials have zero headspace?	No VOA vials submitted		
Water-pH acceptable upon receipt?	N/A		

pH Checked by: n/a

pH Adjusted by: n/a

Torrent LABORATORY, INC.

CHAIN OF CUSTODY RECORD

1509029

PROJECT NUMBER 12288.000.000 | PROJECT NAME Former Hayward Ford Site

SAMPLED BY: (SIGNATURE/PRINT) Kelsey Gerhart

PROJECT MANAGER: (SIGNATURE/PRINT) Scott Johns

ROUTING: E-MAIL kgerhart@engeo.com , sjohns@engeo.com HARD COPY

SAMPLE NUMBER	DATE	TIME	MATRIX	NUMBER OF CONTAINERS	CONTAINER SIZE	PRESERVATIVE	Pesticides (8081)	Arsenic (6010)	TPH-d/mo (with silica gel cleanup) (8015)	CAM 17 (6010and 7471)	TPH-g and VOCs (8260B)	TO-15	REMARKS REQUIRED DETECTION LIMITS
AG5-A @6"-18"	9/2/2015	6:15	Soil		liner	-							
AG5-B @6"-12"	9/2/2015	6:16	Soil		liner	-	X	X					
AG5-C @6"-12"	9/2/2015	6:17	Soil		liner	-							
AG5-D @6"-12"	9/2/2015	6:18	Soil		liner	-							
AG6 @6"-18"	9/2/2015	4:30	Soil		liner	-	HOLD						
S1@ 4'	9/2/2015	10:00	Soil		liner	-			X	X	X		
S2@ 5'	9/2/2015	5:41	Soil		liner	-			X	X	X		
S3@ 5'	9/2/2015	5:50	Soil		liner	-			X	X	X		
SV-1	9/2/2015	1:00	Soil Vapor		~~liner~~	Parameters						X	-001A
~~SV-2~~	~~9/2/2015~~	NO	Soil Vapor		liner	-						X	
SV-3	9/2/2015	7:11	Soil Vapor		~~liner~~	-						X	-002A
SV-4	9/2/2015	4:00	Soil Vapor		~~liner~~	-						X	-003A
SV-5	9/2/2015	3:30	Soil Vapor		~~liner~~	-						X	-004A
SV-6	9/2/2015	2:45	Soil Vapor		~~liner~~	-						X	-005A

3 DAY STANDARD

RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)
Kelsey Gerhart	9/2/15 7:40	Pankaj		
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)		

REMARKS
Leak Detection Lit DFA
Standard TAT

ENGEO INCORPORATED
2010 CROW CANYON PLACE SUITE 250
SAN RAMON, CALIFORNIA 94583
(925) 866-9000 FAX (925) 866-0199
WWW.ENGEO.COM

REC LBL LIR 9/10

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DISTRIBUTION: ORIGINAL ACCOMPANIES SHIPMENT; COPY TO PROJECT FIELD FILES

Engeo (San Ramon)
2010 Crow Canyon Place,#250
San Ramon, California 94583
Tel: (925) 866-9000
Fax: (925) 866-0199

RE: Former Hayward Ford Site

Work Order No.: 1509030 Rev: 1

Dear Scott Johns:

Torrent Laboratory, Inc. received 24 sample(s) on September 02, 2015 for the analyses presented in the following Report.

Per Chain of Custody instructions, five samples were analyzed as discrete samples for Arsenic. 20 samples were used to prepare five 4:1 point composites for OCP analysis. Three samples were tested as discrete samples for TPH gas, diesel, motor oil, CAM17 metals and VOCs. One sample was placed on hold.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.



September 15, 2015

Patti Sandrock
QA Officer

Date

Date: 9/15/2015

Client: Engeo (San Ramon)

Project: Former Hayward Ford Site

Work Order: 1509030

CASE NARRATIVE

No issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.

Unless otherwise indicated in the following narrative, no results have been method and/or field blank corrected.

Reported results relate only to the items/samples tested by the laboratory.

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REVISIONS

Per client request, report revised to include OCP analysis for the AG3-A-D (009-012) samples as discrete samples.

Dieldrin results of the analyses from the discrete samples were significantly lower than the results originally reported for the composite sample composed of those samples. Re-extraction and re-analysis of the composite plus re-extraction and re-analysis performed on a re-composited sample also yielded lower results. These results all indicate that the initial result was likely due to sample hetergeneity, probably related to the difficulty of creating a homogenous sample without a completely dry soil.

Rev. 1 (9/15/15)

Sample Result Summary

Report prepared for: Scott Johns
Engeo (San Ramon)

Date Received: 09/02/15
Date Reported: 09/15/15

AG1-A @ 6-18" 1509030-001

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
Arsenic	SW6010B	1	0.28	1.7	7.2	mg/Kg

AG2-B @ 6-18" 1509030-006

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
Arsenic	SW6010B	1	0.28	1.7	3.2	mg/Kg

AG3-A @ 6-18" 1509030-009

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
Dieldrin	SW8081A	20	12	40	29	ug/Kg

AG3-B @ 6-18" 1509030-010

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit

All compounds were non-detectable for this sample.

AG3-C @ 6-18" 1509030-011

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit

All compounds were non-detectable for this sample.

AG3-D @ 6-18" 1509030-012

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
4,4'-DDE	SW8081A	20	10	40	220	ug/Kg
4,4'-DDD	SW8081A	20	15	40	19	ug/Kg
4,4'-DDT	SW8081A	20	13	40	300	ug/Kg
Endrin aldehyde	SW8081A	20	9.2	40	14	ug/Kg

Sample Result Summary

Report prepared for: Scott Johns
Engeo (San Ramon)

Date Received: 09/02/15
Date Reported: 09/15/15

AG4-D @ 6-18" 1509030-016

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
Arsenic	SW6010B	1	0.28	1.7	3.4	mg/Kg

AG5-B @ 6"-12" 1509030-018

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
Arsenic	SW6010B	1	0.28	1.7	6.2	mg/Kg

S1 @ 4' 1509030-022

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
TPH as Motor Oil (SG)	SW8015B(M)	1	1.0	10	18	mg/Kg
Arsenic	SW6010B	1	0.25	1.7	4.8	mg/Kg
Barium	SW6010B	1	0.07	5.0	160	mg/Kg
Chromium	SW6010B	1	0.0500	5.0	34	mg/Kg
Cobalt	SW6010B	1	0.055	5.0	12	mg/Kg
Copper	SW6010B	1	0.650	5.0	45	mg/Kg
Lead	SW6010B	1	0.14	1.0	9.1	mg/Kg
Nickel	SW6010B	1	0.0500	5.0	31	mg/Kg
Vanadium	SW6010B	1	0.18	5.0	56	mg/Kg
Zinc	SW6010B	1	0.25	5.0	58	mg/Kg

Torrent LABORATORY, INC.

Sample Result Summary

Report prepared for: Scott Johns
Engeo (San Ramon)

Date Received: 09/02/15
Date Reported: 09/15/15

S2 @ 5' 1509030-023

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
Arsenic	SW6010B	1	0.25	1.7	7.6	mg/Kg
Barium	SW6010B	1	0.07	5.0	190	mg/Kg
Chromium	SW6010B	1	0.0500	5.0	46	mg/Kg
Cobalt	SW6010B	1	0.055	5.0	10	mg/Kg
Copper	SW6010B	1	0.650	5.0	46	mg/Kg
Lead	SW6010B	1	0.14	1.0	8.9	mg/Kg
Nickel	SW6010B	1	0.0500	5.0	33	mg/Kg
Vanadium	SW6010B	1	0.18	5.0	67	mg/Kg
Zinc	SW6010B	1	0.25	5.0	49	mg/Kg

S3 @ 5' 1509030-024

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
Arsenic	SW6010B	1	0.25	1.7	5.4	mg/Kg
Barium	SW6010B	1	0.07	5.0	110	mg/Kg
Chromium	SW6010B	1	0.0500	5.0	34	mg/Kg
Cobalt	SW6010B	1	0.055	5.0	8.9	mg/Kg
Copper	SW6010B	1	0.650	5.0	25	mg/Kg
Lead	SW6010B	1	0.14	1.0	14	mg/Kg
Nickel	SW6010B	1	0.0500	5.0	36	mg/Kg
Vanadium	SW6010B	1	0.18	5.0	36	mg/Kg
Zinc	SW6010B	1	0.25	5.0	84	mg/Kg
TPH as Diesel (SG)	SW8015B(M)	1	0.66	2.0	2.2	mg/Kg
TPH as Motor Oil (SG)	SW8015B(M)	1	1.0	10	43	mg/Kg

Sample Result Summary

Report prepared for: Scott Johns
Engeo (San Ramon)

Date Received: 09/02/15
Date Reported: 09/15/15

Comp AG1(A-D @ 6-18") 1509030-025

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
4,4'-DDE	SW8081A	10	5.1	20	8.3	ug/Kg
Endrin aldehyde	SW8081A	10	4.6	20	50	ug/Kg

Comp AG2(A-D @ 6-18") 1509030-026

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit

All compounds were non-detectable for this sample.

Comp AG3(A-D @ 6-18") 1509030-027

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
4,4'-DDE	SW8081A	20	10	40	56	ug/Kg
Dieldrin	SW8081A	20	12	40	86	ug/Kg
4,4'-DDT	SW8081A	20	13	40	120	ug/Kg

Comp AG4(A-D @ 6-18") 1509030-028

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit

All compounds were non-detectable for this sample.

Comp AG5(A-D @ 6-18") 1509030-029

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
Heptachlor epoxide	SW8081A	10	3.6	20	5.1	ug/Kg
gamma-Chlordane	SW8081A	10	7.9	20	40	ug/Kg
alpha-Chlordane	SW8081A	10	9.4	20	49	ug/Kg
4,4'-DDE	SW8081A	10	5.1	20	15	ug/Kg
Dieldrin	SW8081A	10	5.8	20	23	ug/Kg
4,4'-DDT	SW8081A	10	6.7	20	9.7	ug/Kg
Chlordane	SW8081A	10	100	200	410	ug/Kg

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Scott Johns
Engeo (San Ramon)

Date Received: 09/02/15
Date Reported: 09/15/15

Client Sample ID:	AG1-A @ 6-18"	**Lab Sample ID:**	1509030-001A
Project Name/Location:	Former Hayward Ford Site	**Sample Matrix:**	Soil
Project Number:	12288.000.000		
Date/Time Sampled:	09/02/15 / 17:12		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	9/2/15	09/03/15	1	0.28	1.7	7.2		mg/Kg	426833	15234

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Scott Johns
Engeo (San Ramon)

Date Received: 09/02/15
Date Reported: 09/15/15

Client Sample ID:	AG2-B @ 6-18"	**Lab Sample ID:**	1509030-006A
Project Name/Location:	Former Hayward Ford Site	**Sample Matrix:**	Soil
Project Number:	12288.000.000		
Date/Time Sampled:	09/02/15 / 17:10		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	9/2/15	09/03/15	1	0.28	1.7	3.2		mg/Kg	426833	15234

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Scott Johns
Engeo (San Ramon)

Date Received: 09/02/15
Date Reported: 09/15/15

Client Sample ID:	AG3-A @ 6-18"	**Lab Sample ID:**	1509030-009A
Project Name/Location:	Former Hayward Ford Site	**Sample Matrix:**	Soil
Project Number:	12288.000.000		
Date/Time Sampled:	09/02/15 / 17:01		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
The results shown below are reported using their MDL.											
alpha-BHC	SW8081A	9/9/15	09/11/15	20	12	40	ND		ug/Kg	426925	15265
gamma-BHC	SW8081A	9/9/15	09/11/15	20	12	40	ND		ug/Kg	426925	15265
beta-BHC	SW8081A	9/9/15	09/11/15	20	11	40	ND		ug/Kg	426925	15265
delta-BHC	SW8081A	9/9/15	09/11/15	20	8.1	40	ND		ug/Kg	426925	15265
Heptachlor	SW8081A	9/9/15	09/11/15	20	16	40	ND		ug/Kg	426925	15265
Aldrin	SW8081A	9/9/15	09/11/15	20	16	40	ND		ug/Kg	426925	15265
Heptachlor epoxide	SW8081A	9/9/15	09/11/15	20	7.2	40	ND		ug/Kg	426925	15265
gamma-Chlordane	SW8081A	9/9/15	09/11/15	20	16	40	ND		ug/Kg	426925	15265
alpha-Chlordane	SW8081A	9/9/15	09/11/15	20	19	40	ND		ug/Kg	426925	15265
Endosulfan I	SW8081A	9/9/15	09/11/15	20	13	40	ND		ug/Kg	426925	15265
4,4'-DDE	SW8081A	9/9/15	09/11/15	20	10	40	ND		ug/Kg	426925	15265
Dieldrin	SW8081A	9/9/15	09/11/15	20	12	40	29	J	ug/Kg	426925	15265
Endrin	SW8081A	9/9/15	09/11/15	20	17	40	ND		ug/Kg	426925	15265
4,4'-DDD	SW8081A	9/9/15	09/11/15	20	15	40	ND		ug/Kg	426925	15265
Endosulfan II	SW8081A	9/9/15	09/11/15	20	16	40	ND		ug/Kg	426925	15265
4,4'-DDT	SW8081A	9/9/15	09/11/15	20	13	40	ND		ug/Kg	426925	15265
Endrin aldehyde	SW8081A	9/9/15	09/11/15	20	9.2	40	ND		ug/Kg	426925	15265
Endosulfan sulfate	SW8081A	9/9/15	09/11/15	20	12	40	ND		ug/Kg	426925	15265
Methoxychlor	SW8081A	9/9/15	09/11/15	20	12	100	ND		ug/Kg	426925	15265
Endrin Ketone	SW8081A	9/9/15	09/11/15	20	12	40	ND		ug/Kg	426925	15265
Chlordane	SW8081A	9/9/15	09/11/15	20	210	400	ND		ug/Kg	426925	15265
Toxaphene	SW8081A	9/9/15	09/11/15	20	160	2000	ND		ug/Kg	426925	15265
TCMX (S)	SW8081A	9/9/15	09/11/15	20	52.5	139	0.000	D	%	426925	15265
DCBP (S)	SW8081A	9/9/15	09/11/15	20	50.2	139	0.000	D	%	426925	15265

NOTE: Reporting limits increased due to nature of the matrix (viscous/dark color extract)

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Scott Johns
Engeo (San Ramon)

Date Received: 09/02/15
Date Reported: 09/15/15

Client Sample ID:	AG3-B @ 6-18"	**Lab Sample ID:**	1509030-010A
Project Name/Location:	Former Hayward Ford Site	**Sample Matrix:**	Soil
Project Number:	12288.000.000		
Date/Time Sampled:	09/02/15 / 10:47		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
The results shown below are reported using their MDL.											
alpha-BHC	SW8081A	9/9/15	09/11/15	20	12	40	ND		ug/Kg	426925	15265
gamma-BHC	SW8081A	9/9/15	09/11/15	20	12	40	ND		ug/Kg	426925	15265
beta-BHC	SW8081A	9/9/15	09/11/15	20	11	40	ND		ug/Kg	426925	15265
delta-BHC	SW8081A	9/9/15	09/11/15	20	8.1	40	ND		ug/Kg	426925	15265
Heptachlor	SW8081A	9/9/15	09/11/15	20	16	40	ND		ug/Kg	426925	15265
Aldrin	SW8081A	9/9/15	09/11/15	20	16	40	ND		ug/Kg	426925	15265
Heptachlor epoxide	SW8081A	9/9/15	09/11/15	20	7.2	40	ND		ug/Kg	426925	15265
gamma-Chlordane	SW8081A	9/9/15	09/11/15	20	16	40	ND		ug/Kg	426925	15265
alpha-Chlordane	SW8081A	9/9/15	09/11/15	20	19	40	ND		ug/Kg	426925	15265
Endosulfan I	SW8081A	9/9/15	09/11/15	20	13	40	ND		ug/Kg	426925	15265
4,4'-DDE	SW8081A	9/9/15	09/11/15	20	10	40	ND		ug/Kg	426925	15265
Dieldrin	SW8081A	9/9/15	09/11/15	20	12	40	ND		ug/Kg	426925	15265
Endrin	SW8081A	9/9/15	09/11/15	20	17	40	ND		ug/Kg	426925	15265
4,4'-DDD	SW8081A	9/9/15	09/11/15	20	15	40	ND		ug/Kg	426925	15265
Endosulfan II	SW8081A	9/9/15	09/11/15	20	16	40	ND		ug/Kg	426925	15265
4,4'-DDT	SW8081A	9/9/15	09/11/15	20	13	40	ND		ug/Kg	426925	15265
Endrin aldehyde	SW8081A	9/9/15	09/11/15	20	9.2	40	ND		ug/Kg	426925	15265
Endosulfan sulfate	SW8081A	9/9/15	09/11/15	20	12	40	ND		ug/Kg	426925	15265
Methoxychlor	SW8081A	9/9/15	09/11/15	20	12	100	ND		ug/Kg	426925	15265
Endrin Ketone	SW8081A	9/9/15	09/11/15	20	12	40	ND		ug/Kg	426925	15265
Chlordane	SW8081A	9/9/15	09/11/15	20	210	400	ND		ug/Kg	426925	15265
Toxaphene	SW8081A	9/9/15	09/11/15	20	160	2000	ND		ug/Kg	426925	15265
TCMX (S)	SW8081A	9/9/15	09/11/15	20	52.5	139	0.000	D	%	426925	15265
DCBP (S)	SW8081A	9/9/15	09/11/15	20	50.2	139	0.000	D	%	426925	15265

NOTE: Reporting limits increased due to nature of the matrix (viscous/dark color extract)

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Scott Johns
Engeo (San Ramon)

Date Received: 09/02/15
Date Reported: 09/15/15

Client Sample ID:	AG3-C @ 6-18"	**Lab Sample ID:**	1509030-011A
Project Name/Location:	Former Hayward Ford Site	**Sample Matrix:**	Soil
Project Number:	12288.000.000		
Date/Time Sampled:	09/02/15 / 16:45		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	9/2/15	09/03/15	1	0.28	1.7	ND		mg/Kg	426833	15234

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
The results shown below are reported using their MDL.											
alpha-BHC	SW8081A	9/9/15	09/11/15	20	12	40	ND		ug/Kg	426925	15265
gamma-BHC	SW8081A	9/9/15	09/11/15	20	12	40	ND		ug/Kg	426925	15265
beta-BHC	SW8081A	9/9/15	09/11/15	20	11	40	ND		ug/Kg	426925	15265
delta-BHC	SW8081A	9/9/15	09/11/15	20	8.1	40	ND		ug/Kg	426925	15265
Heptachlor	SW8081A	9/9/15	09/11/15	20	16	40	ND		ug/Kg	426925	15265
Aldrin	SW8081A	9/9/15	09/11/15	20	16	40	ND		ug/Kg	426925	15265
Heptachlor epoxide	SW8081A	9/9/15	09/11/15	20	7.2	40	ND		ug/Kg	426925	15265
gamma-Chlordane	SW8081A	9/9/15	09/11/15	20	16	40	ND		ug/Kg	426925	15265
alpha-Chlordane	SW8081A	9/9/15	09/11/15	20	19	40	ND		ug/Kg	426925	15265
Endosulfan I	SW8081A	9/9/15	09/11/15	20	13	40	ND		ug/Kg	426925	15265
4,4'-DDE	SW8081A	9/9/15	09/11/15	20	10	40	ND		ug/Kg	426925	15265
Dieldrin	SW8081A	9/9/15	09/11/15	20	12	40	ND		ug/Kg	426925	15265
Endrin	SW8081A	9/9/15	09/11/15	20	17	40	ND		ug/Kg	426925	15265
4,4'-DDD	SW8081A	9/9/15	09/11/15	20	15	40	ND		ug/Kg	426925	15265
Endosulfan II	SW8081A	9/9/15	09/11/15	20	16	40	ND		ug/Kg	426925	15265
4,4'-DDT	SW8081A	9/9/15	09/11/15	20	13	40	ND		ug/Kg	426925	15265
Endrin aldehyde	SW8081A	9/9/15	09/11/15	20	9.2	40	ND		ug/Kg	426925	15265
Endosulfan sulfate	SW8081A	9/9/15	09/11/15	20	12	40	ND		ug/Kg	426925	15265
Methoxychlor	SW8081A	9/9/15	09/11/15	20	12	100	ND		ug/Kg	426925	15265
Endrin Ketone	SW8081A	9/9/15	09/11/15	20	12	40	ND		ug/Kg	426925	15265
Chlordane	SW8081A	9/9/15	09/11/15	20	210	400	ND		ug/Kg	426925	15265
Toxaphene	SW8081A	9/9/15	09/11/15	20	160	2000	ND		ug/Kg	426925	15265
TCMX (S)	SW8081A	9/9/15	09/11/15	20	52.5	139	0.000	D	%	426925	15265
DCBP (S)	SW8081A	9/9/15	09/11/15	20	50.2	139	0.000	D	%	426925	15265

NOTE: Reporting limits increased due to nature of the matrix (viscous/dark color extract)

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Scott Johns
Engeo (San Ramon)

Date Received: 09/02/15
Date Reported: 09/15/15

Client Sample ID:	AG3-D @ 6-18"	**Lab Sample ID:**	1509030-012A
Project Name/Location:	Former Hayward Ford Site	**Sample Matrix:**	Soil
Project Number:	12288.000.000		
Date/Time Sampled:	09/02/15 / 16:53		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
The results shown below are reported using their MDL.											
alpha-BHC	SW8081A	9/9/15	09/11/15	20	12	40	ND		ug/Kg	426925	15265
gamma-BHC	SW8081A	9/9/15	09/11/15	20	12	40	ND		ug/Kg	426925	15265
beta-BHC	SW8081A	9/9/15	09/11/15	20	11	40	ND		ug/Kg	426925	15265
delta-BHC	SW8081A	9/9/15	09/11/15	20	8.1	40	ND		ug/Kg	426925	15265
Heptachlor	SW8081A	9/9/15	09/11/15	20	16	40	ND		ug/Kg	426925	15265
Aldrin	SW8081A	9/9/15	09/11/15	20	16	40	ND		ug/Kg	426925	15265
Heptachlor epoxide	SW8081A	9/9/15	09/11/15	20	7.2	40	ND		ug/Kg	426925	15265
gamma-Chlordane	SW8081A	9/9/15	09/11/15	20	16	40	ND		ug/Kg	426925	15265
alpha-Chlordane	SW8081A	9/9/15	09/11/15	20	19	40	ND		ug/Kg	426925	15265
Endosulfan I	SW8081A	9/9/15	09/11/15	20	13	40	ND		ug/Kg	426925	15265
4,4'-DDE	SW8081A	9/9/15	09/11/15	20	10	40	220		ug/Kg	426925	15265
Dieldrin	SW8081A	9/9/15	09/11/15	20	12	40	ND		ug/Kg	426925	15265
Endrin	SW8081A	9/9/15	09/11/15	20	17	40	ND		ug/Kg	426925	15265
4,4'-DDD	SW8081A	9/9/15	09/11/15	20	15	40	19	J	ug/Kg	426925	15265
Endosulfan II	SW8081A	9/9/15	09/11/15	20	16	40	ND		ug/Kg	426925	15265
4,4'-DDT	SW8081A	9/9/15	09/11/15	20	13	40	300		ug/Kg	426925	15265
Endrin aldehyde	SW8081A	9/9/15	09/11/15	20	9.2	40	14	J	ug/Kg	426925	15265
Endosulfan sulfate	SW8081A	9/9/15	09/11/15	20	12	40	ND		ug/Kg	426925	15265
Methoxychlor	SW8081A	9/9/15	09/11/15	20	12	100	ND		ug/Kg	426925	15265
Endrin Ketone	SW8081A	9/9/15	09/11/15	20	12	40	ND		ug/Kg	426925	15265
Chlordane	SW8081A	9/9/15	09/11/15	20	210	400	ND		ug/Kg	426925	15265
Toxaphene	SW8081A	9/9/15	09/11/15	20	160	2000	ND		ug/Kg	426925	15265
TCMX (S)	SW8081A	9/9/15	09/11/15	20	52.5	139	0.000	D	%	426925	15265
DCBP (S)	SW8081A	9/9/15	09/11/15	20	50.2	139	0.000	D	%	426925	15265

NOTE: Reporting limits increased due to nature of the matrix (viscous/dark color extract)

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Scott Johns
Engeo (San Ramon)

Date Received: 09/02/15
Date Reported: 09/15/15

Client Sample ID:	AG4-D @ 6-18"	**Lab Sample ID:**	1509030-016A
Project Name/Location:	Former Hayward Ford Site	**Sample Matrix:**	Soil
Project Number:	12288.000.000		
Date/Time Sampled:	09/02/15 / 17:40		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	9/2/15	09/03/15	1	0.28	1.7	3.4		mg/Kg	426833	15234

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Scott Johns
Engeo (San Ramon)

Date Received: 09/02/15
Date Reported: 09/15/15

Client Sample ID:	AG5-B @ 6"-12"	**Lab Sample ID:**	1509030-018A
Project Name/Location:	Former Hayward Ford Site	**Sample Matrix:**	Soil
Project Number:	12288.000.000		
Date/Time Sampled:	09/02/15 / 18:16		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Arsenic	SW6010B	9/2/15	09/03/15	1	0.28	1.7	6.2		mg/Kg	426833	15234

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Scott Johns
Engeo (San Ramon)

Date Received: 09/02/15
Date Reported: 09/15/15

Client Sample ID:	S1 @ 4'	**Lab Sample ID:**	1509030-022A
Project Name/Location:	Former Hayward Ford Site	**Sample Matrix:**	Soil
Project Number:	12288.000.000		
Date/Time Sampled:	09/02/15 / 10:00		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Antimony	SW6010B	9/2/15	09/03/15	1	0.20	5.0	ND		mg/Kg	426833	15234
Arsenic	SW6010B	9/2/15	09/03/15	1	0.25	1.7	4.8		mg/Kg	426833	15234
Barium	SW6010B	9/2/15	09/03/15	1	0.07	5.0	160		mg/Kg	426833	15234
Beryllium	SW6010B	9/2/15	09/03/15	1	0.0800	2.0	ND		mg/Kg	426833	15234
Cadmium	SW6010B	9/2/15	09/03/15	1	0.0550	1.0	ND		mg/Kg	426833	15234
Chromium	SW6010B	9/2/15	09/03/15	1	0.0500	5.0	34		mg/Kg	426833	15234
Cobalt	SW6010B	9/2/15	09/03/15	1	0.055	5.0	12		mg/Kg	426833	15234
Copper	SW6010B	9/2/15	09/03/15	1	0.650	5.0	45		mg/Kg	426833	15234
Lead	SW6010B	9/2/15	09/03/15	1	0.14	1.0	9.1		mg/Kg	426833	15234
Molybdenum	SW6010B	9/2/15	09/03/15	1	0.120	5.0	ND		mg/Kg	426833	15234
Nickel	SW6010B	9/2/15	09/03/15	1	0.0500	5.0	31		mg/Kg	426833	15234
Selenium	SW6010B	9/2/15	09/03/15	1	0.42	5.0	ND		mg/Kg	426833	15234
Silver	SW6010B	9/2/15	09/03/15	1	0.37	5.0	ND		mg/Kg	426833	15234
Thallium	SW6010B	9/2/15	09/03/15	1	0.49	7.5	ND		mg/Kg	426833	15234
Vanadium	SW6010B	9/2/15	09/03/15	1	0.18	5.0	56		mg/Kg	426833	15234
Zinc	SW6010B	9/2/15	09/03/15	1	0.25	5.0	58		mg/Kg	426833	15234

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Mercury	SW7471A	9/2/15	09/03/15	1	0.2	0.50	ND		mg/Kg	426838	15236

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Scott Johns
Engeo (San Ramon)

Date Received: 09/02/15
Date Reported: 09/15/15

Client Sample ID:	S1 @ 4'	**Lab Sample ID:**	1509030-022A
Project Name/Location:	Former Hayward Ford Site	**Sample Matrix:**	Soil
Project Number:	12288.000.000		
Date/Time Sampled:	09/02/15 / 10:00		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Dichlorodifluoromethane	SW8260B	NA	09/03/15	1	4.4	10	ND		ug/Kg	426840	NA
Isopropyl Alcohol	SW8260B	NA	09/03/15	1	4.6	10	ND		ug/Kg	426840	NA
Vinyl Chloride	SW8260B	NA	09/03/15	1	2.6	10	ND		ug/Kg	426840	NA
Bromomethane	SW8260B	NA	09/03/15	1	4.7	10	ND		ug/Kg	426840	NA
Trichlorofluoromethane	SW8260B	NA	09/03/15	1	2.9	10	ND		ug/Kg	426840	NA
1,1-Dichloroethene	SW8260B	NA	09/03/15	1	1.5	10	ND		ug/Kg	426840	NA
Freon 113	SW8260B	NA	09/03/15	1	3.7	10	ND		ug/Kg	426840	NA
Methylene Chloride	SW8260B	NA	09/03/15	1	2.0	50	ND		ug/Kg	426840	NA
trans-1,2-Dichloroethene	SW8260B	NA	09/03/15	1	1.1	10	ND		ug/Kg	426840	NA
MTBE	SW8260B	NA	09/03/15	1	2.6	10	ND		ug/Kg	426840	NA
tert-Butanol	SW8260B	NA	09/03/15	1	21	50	ND		ug/Kg	426840	NA
Diisopropyl ether (DIPE)	SW8260B	NA	09/03/15	1	2.2	10	ND		ug/Kg	426840	NA
1,1-Dichloroethane	SW8260B	NA	09/03/15	1	1.3	10	ND		ug/Kg	426840	NA
ETBE	SW8260B	NA	09/03/15	1	2.4	10	ND		ug/Kg	426840	NA
cis-1,2-Dichloroethene	SW8260B	NA	09/03/15	1	1.8	10	ND		ug/Kg	426840	NA
2,2-Dichloropropane	SW8260B	NA	09/03/15	1	1.2	10	ND		ug/Kg	426840	NA
Bromochloromethane	SW8260B	NA	09/03/15	1	2.3	10	ND		ug/Kg	426840	NA
Chloroform	SW8260B	NA	09/03/15	1	1.2	10	ND		ug/Kg	426840	NA
Carbon Tetrachloride	SW8260B	NA	09/03/15	1	1.6	10	ND		ug/Kg	426840	NA
1,1,1-Trichloroethane	SW8260B	NA	09/03/15	1	1.2	10	ND		ug/Kg	426840	NA
1,1-Dichloropropene	SW8260B	NA	09/03/15	1	1.4	10	ND		ug/Kg	426840	NA
Benzene	SW8260B	NA	09/03/15	1	1.5	10	ND		ug/Kg	426840	NA
TAME	SW8260B	NA	09/03/15	1	2.1	10	ND		ug/Kg	426840	NA
1,2-Dichloroethane	SW8260B	NA	09/03/15	1	1.9	10	ND		ug/Kg	426840	NA
Trichloroethylene	SW8260B	NA	09/03/15	1	3.9	10	ND		ug/Kg	426840	NA
Dibromomethane	SW8260B	NA	09/03/15	1	2.2	10	ND		ug/Kg	426840	NA
1,2-Dichloropropane	SW8260B	NA	09/03/15	1	1.3	10	ND		ug/Kg	426840	NA
Bromodichloromethane	SW8260B	NA	09/03/15	1	1.1	10	ND		ug/Kg	426840	NA
cis-1,3-Dichloropropene	SW8260B	NA	09/03/15	1	1.4	10	ND		ug/Kg	426840	NA
Toluene	SW8260B	NA	09/03/15	1	0.98	10	ND		ug/Kg	426840	NA
Tetrachloroethylene	SW8260B	NA	09/03/15	1	1.8	10	ND		ug/Kg	426840	NA
trans-1,3-Dichloropropene	SW8260B	NA	09/03/15	1	1.2	10	ND		ug/Kg	426840	NA
1,1,2-Trichloroethane	SW8260B	NA	09/03/15	1	1.8	10	ND		ug/Kg	426840	NA
Dibromochloromethane	SW8260B	NA	09/03/15	1	1.1	10	ND		ug/Kg	426840	NA
1,3-Dichloropropane	SW8260B	NA	09/03/15	1	2.1	10	ND		ug/Kg	426840	NA
1,2-Dibromoethane	SW8260B	NA	09/03/15	1	1.7	10	ND		ug/Kg	426840	NA
Ethyl Benzene	SW8260B	NA	09/03/15	1	0.86	10	ND		ug/Kg	426840	NA

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Scott Johns
Engeo (San Ramon)

Date Received: 09/02/15
Date Reported: 09/15/15

Client Sample ID:	S1 @ 4'	**Lab Sample ID:**	1509030-022A
Project Name/Location:	Former Hayward Ford Site	**Sample Matrix:**	Soil
Project Number:	12288.000.000		
Date/Time Sampled:	09/02/15 / 10:00		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Chlorobenzene	SW8260B	NA	09/03/15	1	4.2	10	ND		ug/Kg	426840	NA
1,1,1,2-Tetrachloroethane	SW8260B	NA	09/03/15	1	0.86	10	ND		ug/Kg	426840	NA
m,p-Xylene	SW8260B	NA	09/03/15	1	1.9	10	ND		ug/Kg	426840	NA
o-Xylene	SW8260B	NA	09/03/15	1	0.66	5.0	ND		ug/Kg	426840	NA
Styrene	SW8260B	NA	09/03/15	1	0.77	10	ND		ug/Kg	426840	NA
Bromoform	SW8260B	NA	09/03/15	1	1.9	10	ND		ug/Kg	426840	NA
Isopropyl Benzene	SW8260B	NA	09/03/15	1	1.2	10	ND		ug/Kg	426840	NA
n-Propylbenzene	SW8260B	NA	09/03/15	1	1.4	10	ND		ug/Kg	426840	NA
Bromobenzene	SW8260B	NA	09/03/15	1	1.2	10	ND		ug/Kg	426840	NA
1,1,2,2-Tetrachloroethane	SW8260B	NA	09/03/15	1	3.0	10	ND		ug/Kg	426840	NA
1,3,5-Trimethylbenzene	SW8260B	NA	09/03/15	1	1.1	10	ND		ug/Kg	426840	NA
1,2,3-Trichloropropane	SW8260B	NA	09/03/15	1	3.3	10	ND		ug/Kg	426840	NA
4-Chlorotoluene	SW8260B	NA	09/03/15	1	1.6	10	ND		ug/Kg	426840	NA
2-Chlorotoluene	SW8260B	NA	09/03/15	1	1.6	10	ND		ug/Kg	426840	NA
tert-Butylbenzene	SW8260B	NA	09/03/15	1	1.4	10	ND		ug/Kg	426840	NA
1,2,4-Trimethylbenzene	SW8260B	NA	09/03/15	1	1.1	10	ND		ug/Kg	426840	NA
sec-Butyl Benzene	SW8260B	NA	09/03/15	1	1.6	10	ND		ug/Kg	426840	NA
p-Isopropyltoluene	SW8260B	NA	09/03/15	1	1.5	10	ND		ug/Kg	426840	NA
1,3-Dichlorobenzene	SW8260B	NA	09/03/15	1	1.8	10	ND		ug/Kg	426840	NA
1,4-Dichlorobenzene	SW8260B	NA	09/03/15	1	1.5	10	ND		ug/Kg	426840	NA
n-Butylbenzene	SW8260B	NA	09/03/15	1	2.2	10	ND		ug/Kg	426840	NA
1,2-Dichlorobenzene	SW8260B	NA	09/03/15	1	1.3	10	ND		ug/Kg	426840	NA
1,2-Dibromo-3-Chloropropane	SW8260B	NA	09/03/15	1	4.2	10	ND		ug/Kg	426840	NA
Hexachlorobutadiene	SW8260B	NA	09/03/15	1	2.6	10	ND		ug/Kg	426840	NA
1,2,4-Trichlorobenzene	SW8260B	NA	09/03/15	1	2.1	10	ND		ug/Kg	426840	NA
Naphthalene	SW8260B	NA	09/03/15	1	2.8	10	ND		ug/Kg	426840	NA
1,2,3-Trichlorobenzene	SW8260B	NA	09/03/15	1	2.9	10	ND		ug/Kg	426840	NA
(S) Dibromofluoromethane	SW8260B	NA	09/03/15	1	59.8	148	97.0		%	426840	NA
(S) Toluene-d8	SW8260B	NA	09/03/15	1	55.2	133	99.6		%	426840	NA
(S) 4-Bromofluorobenzene	SW8260B	NA	09/03/15	1	55.8	141	113		%	426840	NA

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Gasoline	8260TPH	9/3/15	09/03/15	1	30	100	ND		ug/Kg	426840	15243
(S) 4-Bromofluorobenzene	8260TPH	9/3/15	09/03/15	1	43.9	127	79.7		%	426840	15243

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Scott Johns
Engeo (San Ramon)

Date Received: 09/02/15
Date Reported: 09/15/15

Client Sample ID:	S1 @ 4'	**Lab Sample ID:**	1509030-022A
Project Name/Location:	Former Hayward Ford Site	**Sample Matrix:**	Soil
Project Number:	12288.000.000		
Date/Time Sampled:	09/02/15 / 10:00		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Diesel (SG)	SW8015B(M)	9/3/15	09/03/15	1	0.66	2.0	ND		mg/Kg	426843	15232
TPH as Motor Oil (SG)	SW8015B(M)	9/3/15	09/03/15	1	1.0	10	18		mg/Kg	426843	15232
Pentacosane (S)	SW8015B(M)	9/3/15	09/03/15	1	49.9	144	91.8		%	426843	15232

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Scott Johns
Engeo (San Ramon)

Date Received: 09/02/15
Date Reported: 09/15/15

Client Sample ID:	S2 @ 5'	**Lab Sample ID:**	1509030-023A
Project Name/Location:	Former Hayward Ford Site	**Sample Matrix:**	Soil
Project Number:	12288.000.000		
Date/Time Sampled:	09/02/15 / 17:41		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Antimony	SW6010B	9/2/15	09/03/15	1	0.20	5.0	ND		mg/Kg	426833	15234
Arsenic	SW6010B	9/2/15	09/03/15	1	0.25	1.7	7.6		mg/Kg	426833	15234
Barium	SW6010B	9/2/15	09/03/15	1	0.07	5.0	190		mg/Kg	426833	15234
Beryllium	SW6010B	9/2/15	09/03/15	1	0.0800	2.0	ND		mg/Kg	426833	15234
Cadmium	SW6010B	9/2/15	09/03/15	1	0.0550	1.0	ND		mg/Kg	426833	15234
Chromium	SW6010B	9/2/15	09/03/15	1	0.0500	5.0	46		mg/Kg	426833	15234
Cobalt	SW6010B	9/2/15	09/03/15	1	0.055	5.0	10		mg/Kg	426833	15234
Copper	SW6010B	9/2/15	09/03/15	1	0.650	5.0	46		mg/Kg	426833	15234
Lead	SW6010B	9/2/15	09/03/15	1	0.14	1.0	8.9		mg/Kg	426833	15234
Molybdenum	SW6010B	9/2/15	09/03/15	1	0.120	5.0	ND		mg/Kg	426833	15234
Nickel	SW6010B	9/2/15	09/03/15	1	0.0500	5.0	33		mg/Kg	426833	15234
Selenium	SW6010B	9/2/15	09/03/15	1	0.42	5.0	ND		mg/Kg	426833	15234
Silver	SW6010B	9/2/15	09/03/15	1	0.37	5.0	ND		mg/Kg	426833	15234
Thallium	SW6010B	9/2/15	09/03/15	1	0.49	7.5	ND		mg/Kg	426833	15234
Vanadium	SW6010B	9/2/15	09/03/15	1	0.18	5.0	67		mg/Kg	426833	15234
Zinc	SW6010B	9/2/15	09/03/15	1	0.25	5.0	49		mg/Kg	426833	15234

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Mercury	SW7471A	9/2/15	09/03/15	1	0.2	0.50	ND		mg/Kg	426838	15236

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Scott Johns
Engeo (San Ramon)

Date Received: 09/02/15
Date Reported: 09/15/15

Client Sample ID:	S2 @ 5'	**Lab Sample ID:**	1509030-023A
Project Name/Location:	Former Hayward Ford Site	**Sample Matrix:**	Soil
Project Number:	12288.000.000		
Date/Time Sampled:	09/02/15 / 17:41		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Dichlorodifluoromethane	SW8260B	NA	09/03/15	1	4.4	10	ND		ug/Kg	426840	NA
Isopropyl Alcohol	SW8260B	NA	09/03/15	1	4.6	10	ND		ug/Kg	426840	NA
Vinyl Chloride	SW8260B	NA	09/03/15	1	2.6	10	ND		ug/Kg	426840	NA
Bromomethane	SW8260B	NA	09/03/15	1	4.7	10	ND		ug/Kg	426840	NA
Trichlorofluoromethane	SW8260B	NA	09/03/15	1	2.9	10	ND		ug/Kg	426840	NA
1,1-Dichloroethene	SW8260B	NA	09/03/15	1	1.5	10	ND		ug/Kg	426840	NA
Freon 113	SW8260B	NA	09/03/15	1	3.7	10	ND		ug/Kg	426840	NA
Methylene Chloride	SW8260B	NA	09/03/15	1	2.0	50	ND		ug/Kg	426840	NA
trans-1,2-Dichloroethene	SW8260B	NA	09/03/15	1	1.1	10	ND		ug/Kg	426840	NA
MTBE	SW8260B	NA	09/03/15	1	2.6	10	ND		ug/Kg	426840	NA
tert-Butanol	SW8260B	NA	09/03/15	1	21	50	ND		ug/Kg	426840	NA
Diisopropyl ether (DIPE)	SW8260B	NA	09/03/15	1	2.2	10	ND		ug/Kg	426840	NA
1,1-Dichloroethane	SW8260B	NA	09/03/15	1	1.3	10	ND		ug/Kg	426840	NA
ETBE	SW8260B	NA	09/03/15	1	2.4	10	ND		ug/Kg	426840	NA
cis-1,2-Dichloroethene	SW8260B	NA	09/03/15	1	1.8	10	ND		ug/Kg	426840	NA
2,2-Dichloropropane	SW8260B	NA	09/03/15	1	1.2	10	ND		ug/Kg	426840	NA
Bromochloromethane	SW8260B	NA	09/03/15	1	2.3	10	ND		ug/Kg	426840	NA
Chloroform	SW8260B	NA	09/03/15	1	1.2	10	ND		ug/Kg	426840	NA
Carbon Tetrachloride	SW8260B	NA	09/03/15	1	1.6	10	ND		ug/Kg	426840	NA
1,1,1-Trichloroethane	SW8260B	NA	09/03/15	1	1.2	10	ND		ug/Kg	426840	NA
1,1-Dichloropropene	SW8260B	NA	09/03/15	1	1.4	10	ND		ug/Kg	426840	NA
Benzene	SW8260B	NA	09/03/15	1	1.5	10	ND		ug/Kg	426840	NA
TAME	SW8260B	NA	09/03/15	1	2.1	10	ND		ug/Kg	426840	NA
1,2-Dichloroethane	SW8260B	NA	09/03/15	1	1.9	10	ND		ug/Kg	426840	NA
Trichloroethylene	SW8260B	NA	09/03/15	1	3.9	10	ND		ug/Kg	426840	NA
Dibromomethane	SW8260B	NA	09/03/15	1	2.2	10	ND		ug/Kg	426840	NA
1,2-Dichloropropane	SW8260B	NA	09/03/15	1	1.3	10	ND		ug/Kg	426840	NA
Bromodichloromethane	SW8260B	NA	09/03/15	1	1.1	10	ND		ug/Kg	426840	NA
cis-1,3-Dichloropropene	SW8260B	NA	09/03/15	1	1.4	10	ND		ug/Kg	426840	NA
Toluene	SW8260B	NA	09/03/15	1	0.98	10	ND		ug/Kg	426840	NA
Tetrachloroethylene	SW8260B	NA	09/03/15	1	1.8	10	ND		ug/Kg	426840	NA
trans-1,3-Dichloropropene	SW8260B	NA	09/03/15	1	1.2	10	ND		ug/Kg	426840	NA
1,1,2-Trichloroethane	SW8260B	NA	09/03/15	1	1.8	10	ND		ug/Kg	426840	NA
Dibromochloromethane	SW8260B	NA	09/03/15	1	1.1	10	ND		ug/Kg	426840	NA
1,3-Dichloropropane	SW8260B	NA	09/03/15	1	2.1	10	ND		ug/Kg	426840	NA
1,2-Dibromoethane	SW8260B	NA	09/03/15	1	1.7	10	ND		ug/Kg	426840	NA
Ethyl Benzene	SW8260B	NA	09/03/15	1	0.86	10	ND		ug/Kg	426840	NA

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Scott Johns
Engeo (San Ramon)

Date Received: 09/02/15
Date Reported: 09/15/15

Client Sample ID:	S2 @ 5'	**Lab Sample ID:**	1509030-023A
Project Name/Location:	Former Hayward Ford Site	**Sample Matrix:**	Soil
Project Number:	12288.000.000		
Date/Time Sampled:	09/02/15 / 17:41		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Chlorobenzene	SW8260B	NA	09/03/15	1	4.2	10	ND		ug/Kg	426840	NA
1,1,1,2-Tetrachloroethane	SW8260B	NA	09/03/15	1	0.86	10	ND		ug/Kg	426840	NA
m,p-Xylene	SW8260B	NA	09/03/15	1	1.9	10	ND		ug/Kg	426840	NA
o-Xylene	SW8260B	NA	09/03/15	1	0.66	5.0	ND		ug/Kg	426840	NA
Styrene	SW8260B	NA	09/03/15	1	0.77	10	ND		ug/Kg	426840	NA
Bromoform	SW8260B	NA	09/03/15	1	1.9	10	ND		ug/Kg	426840	NA
Isopropyl Benzene	SW8260B	NA	09/03/15	1	1.2	10	ND		ug/Kg	426840	NA
n-Propylbenzene	SW8260B	NA	09/03/15	1	1.4	10	ND		ug/Kg	426840	NA
Bromobenzene	SW8260B	NA	09/03/15	1	1.2	10	ND		ug/Kg	426840	NA
1,1,2,2-Tetrachloroethane	SW8260B	NA	09/03/15	1	3.0	10	ND		ug/Kg	426840	NA
1,3,5-Trimethylbenzene	SW8260B	NA	09/03/15	1	1.1	10	ND		ug/Kg	426840	NA
1,2,3-Trichloropropane	SW8260B	NA	09/03/15	1	3.3	10	ND		ug/Kg	426840	NA
4-Chlorotoluene	SW8260B	NA	09/03/15	1	1.6	10	ND		ug/Kg	426840	NA
2-Chlorotoluene	SW8260B	NA	09/03/15	1	1.6	10	ND		ug/Kg	426840	NA
tert-Butylbenzene	SW8260B	NA	09/03/15	1	1.4	10	ND		ug/Kg	426840	NA
1,2,4-Trimethylbenzene	SW8260B	NA	09/03/15	1	1.1	10	ND		ug/Kg	426840	NA
sec-Butyl Benzene	SW8260B	NA	09/03/15	1	1.6	10	ND		ug/Kg	426840	NA
p-Isopropyltoluene	SW8260B	NA	09/03/15	1	1.5	10	ND		ug/Kg	426840	NA
1,3-Dichlorobenzene	SW8260B	NA	09/03/15	1	1.8	10	ND		ug/Kg	426840	NA
1,4-Dichlorobenzene	SW8260B	NA	09/03/15	1	1.5	10	ND		ug/Kg	426840	NA
n-Butylbenzene	SW8260B	NA	09/03/15	1	2.2	10	ND		ug/Kg	426840	NA
1,2-Dichlorobenzene	SW8260B	NA	09/03/15	1	1.3	10	ND		ug/Kg	426840	NA
1,2-Dibromo-3-Chloropropane	SW8260B	NA	09/03/15	1	4.2	10	ND		ug/Kg	426840	NA
Hexachlorobutadiene	SW8260B	NA	09/03/15	1	2.6	10	ND		ug/Kg	426840	NA
1,2,4-Trichlorobenzene	SW8260B	NA	09/03/15	1	2.1	10	ND		ug/Kg	426840	NA
Naphthalene	SW8260B	NA	09/03/15	1	2.8	10	ND		ug/Kg	426840	NA
1,2,3-Trichlorobenzene	SW8260B	NA	09/03/15	1	2.9	10	ND		ug/Kg	426840	NA
(S) Dibromofluoromethane	SW8260B	NA	09/03/15	1	59.8	148	100		%	426840	NA
(S) Toluene-d8	SW8260B	NA	09/03/15	1	55.2	133	102		%	426840	NA
(S) 4-Bromofluorobenzene	SW8260B	NA	09/03/15	1	55.8	141	110		%	426840	NA

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Gasoline	8260TPH	9/3/15	09/03/15	1	30	100	ND		ug/Kg	426840	15243
(S) 4-Bromofluorobenzene	8260TPH	9/3/15	09/03/15	1	43.9	127	67.3		%	426840	15243

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Scott Johns
Engeo (San Ramon)

Date Received: 09/02/15
Date Reported: 09/15/15

Client Sample ID:	S2 @ 5'	**Lab Sample ID:**	1509030-023A
Project Name/Location:	Former Hayward Ford Site	**Sample Matrix:**	Soil
Project Number:	12288.000.000		
Date/Time Sampled:	09/02/15 / 17:41		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Diesel (SG)	SW8015B(M)	9/3/15	09/03/15	1	0.66	2.0	ND		mg/Kg	426843	15232
TPH as Motor Oil (SG)	SW8015B(M)	9/3/15	09/03/15	1	1.0	10	ND		mg/Kg	426843	15232
Pentacosane (S)	SW8015B(M)	9/3/15	09/03/15	1	49.9	144	74.0		%	426843	15232

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Scott Johns
Engeo (San Ramon)

Date Received: 09/02/15
Date Reported: 09/15/15

Client Sample ID:	S3 @ 5'	**Lab Sample ID:**	1509030-024A
Project Name/Location:	Former Hayward Ford Site	**Sample Matrix:**	Soil
Project Number:	12288.000.000		
Date/Time Sampled:	09/02/15 / 17:50		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Antimony	SW6010B	9/2/15	09/03/15	1	0.20	5.0	ND		mg/Kg	426833	15234
Arsenic	SW6010B	9/2/15	09/03/15	1	0.25	1.7	5.4		mg/Kg	426833	15234
Barium	SW6010B	9/2/15	09/03/15	1	0.07	5.0	110		mg/Kg	426833	15234
Beryllium	SW6010B	9/2/15	09/03/15	1	0.0800	2.0	ND		mg/Kg	426833	15234
Cadmium	SW6010B	9/2/15	09/03/15	1	0.0550	1.0	ND		mg/Kg	426833	15234
Chromium	SW6010B	9/2/15	09/03/15	1	0.0500	5.0	34		mg/Kg	426833	15234
Cobalt	SW6010B	9/2/15	09/03/15	1	0.055	5.0	8.9		mg/Kg	426833	15234
Copper	SW6010B	9/2/15	09/03/15	1	0.650	5.0	25		mg/Kg	426833	15234
Lead	SW6010B	9/2/15	09/03/15	1	0.14	1.0	14		mg/Kg	426833	15234
Molybdenum	SW6010B	9/2/15	09/03/15	1	0.120	5.0	ND		mg/Kg	426833	15234
Nickel	SW6010B	9/2/15	09/03/15	1	0.0500	5.0	36		mg/Kg	426833	15234
Selenium	SW6010B	9/2/15	09/03/15	1	0.42	5.0	ND		mg/Kg	426833	15234
Silver	SW6010B	9/2/15	09/03/15	1	0.37	5.0	ND		mg/Kg	426833	15234
Thallium	SW6010B	9/2/15	09/03/15	1	0.49	7.5	ND		mg/Kg	426833	15234
Vanadium	SW6010B	9/2/15	09/03/15	1	0.18	5.0	36		mg/Kg	426833	15234
Zinc	SW6010B	9/2/15	09/03/15	1	0.25	5.0	84		mg/Kg	426833	15234

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Mercury	SW7471A	9/2/15	09/03/15	1	0.2	0.50	ND		mg/Kg	426838	15236

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Scott Johns
Engeo (San Ramon)

Date Received: 09/02/15
Date Reported: 09/15/15

Client Sample ID:	S3 @ 5'	**Lab Sample ID:**	1509030-024A
Project Name/Location:	Former Hayward Ford Site	**Sample Matrix:**	Soil
Project Number:	12288.000.000		
Date/Time Sampled:	09/02/15 / 17:50		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Dichlorodifluoromethane	SW8260B	NA	09/03/15	1	4.4	10	ND		ug/Kg	426840	NA
Isopropyl Alcohol	SW8260B	NA	09/03/15	1	4.6	10	ND		ug/Kg	426840	NA
Vinyl Chloride	SW8260B	NA	09/03/15	1	2.6	10	ND		ug/Kg	426840	NA
Bromomethane	SW8260B	NA	09/03/15	1	4.7	10	ND		ug/Kg	426840	NA
Trichlorofluoromethane	SW8260B	NA	09/03/15	1	2.9	10	ND		ug/Kg	426840	NA
1,1-Dichloroethene	SW8260B	NA	09/03/15	1	1.5	10	ND		ug/Kg	426840	NA
Freon 113	SW8260B	NA	09/03/15	1	3.7	10	ND		ug/Kg	426840	NA
Methylene Chloride	SW8260B	NA	09/03/15	1	2.0	50	ND		ug/Kg	426840	NA
trans-1,2-Dichloroethene	SW8260B	NA	09/03/15	1	1.1	10	ND		ug/Kg	426840	NA
MTBE	SW8260B	NA	09/03/15	1	2.6	10	ND		ug/Kg	426840	NA
tert-Butanol	SW8260B	NA	09/03/15	1	21	50	ND		ug/Kg	426840	NA
Diisopropyl ether (DIPE)	SW8260B	NA	09/03/15	1	2.2	10	ND		ug/Kg	426840	NA
1,1-Dichloroethane	SW8260B	NA	09/03/15	1	1.3	10	ND		ug/Kg	426840	NA
ETBE	SW8260B	NA	09/03/15	1	2.4	10	ND		ug/Kg	426840	NA
cis-1,2-Dichloroethene	SW8260B	NA	09/03/15	1	1.8	10	ND		ug/Kg	426840	NA
2,2-Dichloropropane	SW8260B	NA	09/03/15	1	1.2	10	ND		ug/Kg	426840	NA
Bromochloromethane	SW8260B	NA	09/03/15	1	2.3	10	ND		ug/Kg	426840	NA
Chloroform	SW8260B	NA	09/03/15	1	1.2	10	ND		ug/Kg	426840	NA
Carbon Tetrachloride	SW8260B	NA	09/03/15	1	1.6	10	ND		ug/Kg	426840	NA
1,1,1-Trichloroethane	SW8260B	NA	09/03/15	1	1.2	10	ND		ug/Kg	426840	NA
1,1-Dichloropropene	SW8260B	NA	09/03/15	1	1.4	10	ND		ug/Kg	426840	NA
Benzene	SW8260B	NA	09/03/15	1	1.5	10	ND		ug/Kg	426840	NA
TAME	SW8260B	NA	09/03/15	1	2.1	10	ND		ug/Kg	426840	NA
1,2-Dichloroethane	SW8260B	NA	09/03/15	1	1.9	10	ND		ug/Kg	426840	NA
Trichloroethylene	SW8260B	NA	09/03/15	1	3.9	10	ND		ug/Kg	426840	NA
Dibromomethane	SW8260B	NA	09/03/15	1	2.2	10	ND		ug/Kg	426840	NA
1,2-Dichloropropane	SW8260B	NA	09/03/15	1	1.3	10	ND		ug/Kg	426840	NA
Bromodichloromethane	SW8260B	NA	09/03/15	1	1.1	10	ND		ug/Kg	426840	NA
cis-1,3-Dichloropropene	SW8260B	NA	09/03/15	1	1.4	10	ND		ug/Kg	426840	NA
Toluene	SW8260B	NA	09/03/15	1	0.98	10	ND		ug/Kg	426840	NA
Tetrachloroethylene	SW8260B	NA	09/03/15	1	1.8	10	ND		ug/Kg	426840	NA
trans-1,3-Dichloropropene	SW8260B	NA	09/03/15	1	1.2	10	ND		ug/Kg	426840	NA
1,1,2-Trichloroethane	SW8260B	NA	09/03/15	1	1.8	10	ND		ug/Kg	426840	NA
Dibromochloromethane	SW8260B	NA	09/03/15	1	1.1	10	ND		ug/Kg	426840	NA
1,3-Dichloropropane	SW8260B	NA	09/03/15	1	2.1	10	ND		ug/Kg	426840	NA
1,2-Dibromoethane	SW8260B	NA	09/03/15	1	1.7	10	ND		ug/Kg	426840	NA
Ethyl Benzene	SW8260B	NA	09/03/15	1	0.86	10	ND		ug/Kg	426840	NA

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Scott Johns
Engeo (San Ramon)

Date Received: 09/02/15
Date Reported: 09/15/15

Client Sample ID:	S3 @ 5'	**Lab Sample ID:**	1509030-024A
Project Name/Location:	Former Hayward Ford Site	**Sample Matrix:**	Soil
Project Number:	12288.000.000		
Date/Time Sampled:	09/02/15 / 17:50		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Chlorobenzene	SW8260B	NA	09/03/15	1	4.2	10	ND		ug/Kg	426840	NA
1,1,1,2-Tetrachloroethane	SW8260B	NA	09/03/15	1	0.86	10	ND		ug/Kg	426840	NA
m,p-Xylene	SW8260B	NA	09/03/15	1	1.9	10	ND		ug/Kg	426840	NA
o-Xylene	SW8260B	NA	09/03/15	1	0.66	5.0	ND		ug/Kg	426840	NA
Styrene	SW8260B	NA	09/03/15	1	0.77	10	ND		ug/Kg	426840	NA
Bromoform	SW8260B	NA	09/03/15	1	1.9	10	ND		ug/Kg	426840	NA
Isopropyl Benzene	SW8260B	NA	09/03/15	1	1.2	10	ND		ug/Kg	426840	NA
n-Propylbenzene	SW8260B	NA	09/03/15	1	1.4	10	ND		ug/Kg	426840	NA
Bromobenzene	SW8260B	NA	09/03/15	1	1.2	10	ND		ug/Kg	426840	NA
1,1,2,2-Tetrachloroethane	SW8260B	NA	09/03/15	1	3.0	10	ND		ug/Kg	426840	NA
1,3,5-Trimethylbenzene	SW8260B	NA	09/03/15	1	1.1	10	ND		ug/Kg	426840	NA
1,2,3-Trichloropropane	SW8260B	NA	09/03/15	1	3.3	10	ND		ug/Kg	426840	NA
4-Chlorotoluene	SW8260B	NA	09/03/15	1	1.6	10	ND		ug/Kg	426840	NA
2-Chlorotoluene	SW8260B	NA	09/03/15	1	1.6	10	ND		ug/Kg	426840	NA
tert-Butylbenzene	SW8260B	NA	09/03/15	1	1.4	10	ND		ug/Kg	426840	NA
1,2,4-Trimethylbenzene	SW8260B	NA	09/03/15	1	1.1	10	ND		ug/Kg	426840	NA
sec-Butyl Benzene	SW8260B	NA	09/03/15	1	1.6	10	ND		ug/Kg	426840	NA
p-Isopropyltoluene	SW8260B	NA	09/03/15	1	1.5	10	ND		ug/Kg	426840	NA
1,3-Dichlorobenzene	SW8260B	NA	09/03/15	1	1.8	10	ND		ug/Kg	426840	NA
1,4-Dichlorobenzene	SW8260B	NA	09/03/15	1	1.5	10	ND		ug/Kg	426840	NA
n-Butylbenzene	SW8260B	NA	09/03/15	1	2.2	10	ND		ug/Kg	426840	NA
1,2-Dichlorobenzene	SW8260B	NA	09/03/15	1	1.3	10	ND		ug/Kg	426840	NA
1,2-Dibromo-3-Chloropropane	SW8260B	NA	09/03/15	1	4.2	10	ND		ug/Kg	426840	NA
Hexachlorobutadiene	SW8260B	NA	09/03/15	1	2.6	10	ND		ug/Kg	426840	NA
1,2,4-Trichlorobenzene	SW8260B	NA	09/03/15	1	2.1	10	ND		ug/Kg	426840	NA
Naphthalene	SW8260B	NA	09/03/15	1	2.8	10	ND		ug/Kg	426840	NA
1,2,3-Trichlorobenzene	SW8260B	NA	09/03/15	1	2.9	10	ND		ug/Kg	426840	NA
(S) Dibromofluoromethane	SW8260B	NA	09/03/15	1	59.8	148	97.9		%	426840	NA
(S) Toluene-d8	SW8260B	NA	09/03/15	1	55.2	133	91.9		%	426840	NA
(S) 4-Bromofluorobenzene	SW8260B	NA	09/03/15	1	55.8	141	113		%	426840	NA

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Gasoline	8260TPH	9/3/15	09/03/15	1	30	100	ND		ug/Kg	426840	15243
(S) 4-Bromofluorobenzene	8260TPH	9/3/15	09/03/15	1	43.9	127	85.8		%	426840	15243

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Scott Johns
Engeo (San Ramon)

Date Received: 09/02/15
Date Reported: 09/15/15

Client Sample ID:	S3 @ 5'	**Lab Sample ID:**	1509030-024A
Project Name/Location:	Former Hayward Ford Site	**Sample Matrix:**	Soil
Project Number:	12288.000.000		
Date/Time Sampled:	09/02/15 / 17:50		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Diesel (SG)	SW8015B(M)	9/3/15	09/03/15	1	0.66	2.0	2.2	x	mg/Kg	426843	15232
TPH as Motor Oil (SG)	SW8015B(M)	9/3/15	09/03/15	1	1.0	10	43		mg/Kg	426843	15232
Pentacosane (S)	SW8015B(M)	9/3/15	09/03/15	1	49.9	144	76.5		%	426843	15232

NOTE: x- Diesel result due to over-lapping of oil range organics within diesel quantified range

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Scott Johns
Engeo (San Ramon)

Date Received: 09/02/15
Date Reported: 09/15/15

Client Sample ID:	Comp AG1(A-D @ 6-18")	**Lab Sample ID:**	1509030-025A
Project Name/Location:	Former Hayward Ford Site	**Sample Matrix:**	Soil
Project Number:	12288.000.000		
Date/Time Sampled:	09/02/15 /		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
The results shown below are reported using their MDL.											
alpha-BHC	SW8081A	9/4/15	09/04/15	10	6.1	20	ND		ug/Kg	426861	15245
gamma-BHC	SW8081A	9/4/15	09/04/15	10	6.1	20	ND		ug/Kg	426861	15245
beta-BHC	SW8081A	9/4/15	09/04/15	10	5.6	20	ND		ug/Kg	426861	15245
delta-BHC	SW8081A	9/4/15	09/04/15	10	4.0	20	ND		ug/Kg	426861	15245
Heptachlor	SW8081A	9/4/15	09/04/15	10	7.9	20	ND		ug/Kg	426861	15245
Aldrin	SW8081A	9/4/15	09/04/15	10	8.1	20	ND		ug/Kg	426861	15245
Heptachlor epoxide	SW8081A	9/4/15	09/04/15	10	3.6	20	ND		ug/Kg	426861	15245
gamma-Chlordane	SW8081A	9/4/15	09/04/15	10	7.9	20	ND		ug/Kg	426861	15245
alpha-Chlordane	SW8081A	9/4/15	09/04/15	10	9.4	20	ND		ug/Kg	426861	15245
Endosulfan I	SW8081A	9/4/15	09/04/15	10	6.4	20	ND		ug/Kg	426861	15245
4,4'-DDE	SW8081A	9/4/15	09/04/15	10	5.1	20	8.3	J	ug/Kg	426861	15245
Dieldrin	SW8081A	9/4/15	09/04/15	10	5.8	20	ND		ug/Kg	426861	15245
Endrin	SW8081A	9/4/15	09/04/15	10	8.6	20	ND		ug/Kg	426861	15245
4,4'-DDD	SW8081A	9/4/15	09/04/15	10	7.6	20	ND		ug/Kg	426861	15245
Endosulfan II	SW8081A	9/4/15	09/04/15	10	8.2	20	ND		ug/Kg	426861	15245
4,4'-DDT	SW8081A	9/4/15	09/04/15	10	6.7	20	ND		ug/Kg	426861	15245
Endrin aldehyde	SW8081A	9/4/15	09/04/15	10	4.6	20	50		ug/Kg	426861	15245
Endosulfan sulfate	SW8081A	9/4/15	09/04/15	10	5.8	20	ND		ug/Kg	426861	15245
Methoxychlor	SW8081A	9/4/15	09/04/15	10	6.1	50	ND		ug/Kg	426861	15245
Endrin Ketone	SW8081A	9/4/15	09/04/15	10	5.8	20	ND		ug/Kg	426861	15245
Chlordane	SW8081A	9/4/15	09/04/15	10	100	200	ND		ug/Kg	426861	15245
Toxaphene	SW8081A	9/4/15	09/04/15	10	82	1000	ND		ug/Kg	426861	15245
TCMX (S)	SW8081A	9/4/15	09/04/15	10	52.5	139	107		%	426861	15245
DCBP (S)	SW8081A	9/4/15	09/04/15	10	50.2	139	91.8		%	426861	15245

NOTE: Reporting limits increased due to nature of the matrix (viscous/dark color extract)

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Scott Johns
Engeo (San Ramon)

Date Received: 09/02/15
Date Reported: 09/15/15

Client Sample ID:	Comp AG2(A-D @ 6-18")	**Lab Sample ID:**	1509030-026A
Project Name/Location:	Former Hayward Ford Site	**Sample Matrix:**	Soil
Project Number:	12288.000.000		
Date/Time Sampled:	09/02/15 /		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
alpha-BHC	SW8081A	9/4/15	09/04/15	10	6.1	20	ND		ug/Kg	426861	15245
gamma-BHC	SW8081A	9/4/15	09/04/15	10	6.1	20	ND		ug/Kg	426861	15245
beta-BHC	SW8081A	9/4/15	09/04/15	10	5.6	20	ND		ug/Kg	426861	15245
delta-BHC	SW8081A	9/4/15	09/04/15	10	4.0	20	ND		ug/Kg	426861	15245
Heptachlor	SW8081A	9/4/15	09/04/15	10	7.9	20	ND		ug/Kg	426861	15245
Aldrin	SW8081A	9/4/15	09/04/15	10	8.1	20	ND		ug/Kg	426861	15245
Heptachlor epoxide	SW8081A	9/4/15	09/04/15	10	3.6	20	ND		ug/Kg	426861	15245
gamma-Chlordane	SW8081A	9/4/15	09/04/15	10	7.9	20	ND		ug/Kg	426861	15245
alpha-Chlordane	SW8081A	9/4/15	09/04/15	10	9.4	20	ND		ug/Kg	426861	15245
Endosulfan I	SW8081A	9/4/15	09/04/15	10	6.4	20	ND		ug/Kg	426861	15245
4,4'-DDE	SW8081A	9/4/15	09/04/15	10	5.1	20	ND		ug/Kg	426861	15245
Dieldrin	SW8081A	9/4/15	09/04/15	10	5.8	20	ND		ug/Kg	426861	15245
Endrin	SW8081A	9/4/15	09/04/15	10	8.6	20	ND		ug/Kg	426861	15245
4,4'-DDD	SW8081A	9/4/15	09/04/15	10	7.6	20	ND		ug/Kg	426861	15245
Endosulfan II	SW8081A	9/4/15	09/04/15	10	8.2	20	ND		ug/Kg	426861	15245
4,4'-DDT	SW8081A	9/4/15	09/04/15	10	6.7	20	ND		ug/Kg	426861	15245
Endrin aldehyde	SW8081A	9/4/15	09/04/15	10	4.6	20	ND		ug/Kg	426861	15245
Endosulfan sulfate	SW8081A	9/4/15	09/04/15	10	5.8	20	ND		ug/Kg	426861	15245
Methoxychlor	SW8081A	9/4/15	09/04/15	10	6.1	50	ND		ug/Kg	426861	15245
Endrin Ketone	SW8081A	9/4/15	09/04/15	10	5.8	20	ND		ug/Kg	426861	15245
Chlordane	SW8081A	9/4/15	09/04/15	10	100	200	ND		ug/Kg	426861	15245
Toxaphene	SW8081A	9/4/15	09/04/15	10	82	1000	ND		ug/Kg	426861	15245
TCMX (S)	SW8081A	9/4/15	09/04/15	10	52.5	139	111		%	426861	15245
DCBP (S)	SW8081A	9/4/15	09/04/15	10	50.2	139	85.9		%	426861	15245

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Scott Johns
Engeo (San Ramon)

Date Received: 09/02/15
Date Reported: 09/15/15

Client Sample ID:	Comp AG3(A-D @ 6-18")	**Lab Sample ID:**	1509030-027A
Project Name/Location:	Former Hayward Ford Site	**Sample Matrix:**	Soil
Project Number:	12288.000.000		
Date/Time Sampled:	09/02/15 /		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
The results shown below are reported using their MDL.											
alpha-BHC	SW8081A	9/4/15	09/04/15	20	12	40	ND		ug/Kg	426861	15245
gamma-BHC	SW8081A	9/4/15	09/04/15	20	12	40	ND		ug/Kg	426861	15245
beta-BHC	SW8081A	9/4/15	09/04/15	20	11	40	ND		ug/Kg	426861	15245
delta-BHC	SW8081A	9/4/15	09/04/15	20	8.1	40	ND		ug/Kg	426861	15245
Heptachlor	SW8081A	9/4/15	09/04/15	20	16	40	ND		ug/Kg	426861	15245
Aldrin	SW8081A	9/4/15	09/04/15	20	16	40	ND		ug/Kg	426861	15245
Heptachlor epoxide	SW8081A	9/4/15	09/04/15	20	7.2	40	ND		ug/Kg	426861	15245
gamma-Chlordane	SW8081A	9/4/15	09/04/15	20	16	40	ND		ug/Kg	426861	15245
alpha-Chlordane	SW8081A	9/4/15	09/04/15	20	19	40	ND		ug/Kg	426861	15245
Endosulfan I	SW8081A	9/4/15	09/04/15	20	13	40	ND		ug/Kg	426861	15245
4,4'-DDE	SW8081A	9/4/15	09/04/15	20	10	40	56		ug/Kg	426861	15245
Dieldrin	SW8081A	9/4/15	09/04/15	20	12	40	86		ug/Kg	426861	15245
Endrin	SW8081A	9/4/15	09/04/15	20	17	40	ND		ug/Kg	426861	15245
4,4'-DDD	SW8081A	9/4/15	09/04/15	20	15	40	ND		ug/Kg	426861	15245
Endosulfan II	SW8081A	9/4/15	09/04/15	20	16	40	ND		ug/Kg	426861	15245
4,4'-DDT	SW8081A	9/4/15	09/04/15	20	13	40	120		ug/Kg	426861	15245
Endrin aldehyde	SW8081A	9/4/15	09/04/15	20	9.2	40	ND		ug/Kg	426861	15245
Endosulfan sulfate	SW8081A	9/4/15	09/04/15	20	12	40	ND		ug/Kg	426861	15245
Methoxychlor	SW8081A	9/4/15	09/04/15	20	12	100	ND		ug/Kg	426861	15245
Endrin Ketone	SW8081A	9/4/15	09/04/15	20	12	40	ND		ug/Kg	426861	15245
Chlordane	SW8081A	9/4/15	09/04/15	20	210	400	ND		ug/Kg	426861	15245
Toxaphene	SW8081A	9/4/15	09/04/15	20	160	2000	ND		ug/Kg	426861	15245
TCMX (S)	SW8081A	9/4/15	09/04/15	20	52.5	139	0.000	D	%	426861	15245
DCBP (S)	SW8081A	9/4/15	09/04/15	20	50.2	139	0.000	D	%	426861	15245

NOTE: Reporting limits increased due to nature of the matrix (viscous/dark color extract)

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Scott Johns
Engeo (San Ramon)

Date Received: 09/02/15
Date Reported: 09/15/15

Client Sample ID:	Comp AG4(A-D @ 6-18")	**Lab Sample ID:**	1509030-028A
Project Name/Location:	Former Hayward Ford Site	**Sample Matrix:**	Soil
Project Number:	12288.000.000		
Date/Time Sampled:	09/02/15 /		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
The results shown below are reported using their MDL.											
alpha-BHC	SW8081A	9/4/15	09/04/15	20	12	40	ND		ug/Kg	426861	15245
gamma-BHC	SW8081A	9/4/15	09/04/15	20	12	40	ND		ug/Kg	426861	15245
beta-BHC	SW8081A	9/4/15	09/04/15	20	11	40	ND		ug/Kg	426861	15245
delta-BHC	SW8081A	9/4/15	09/04/15	20	8.1	40	ND		ug/Kg	426861	15245
Heptachlor	SW8081A	9/4/15	09/04/15	20	16	40	ND		ug/Kg	426861	15245
Aldrin	SW8081A	9/4/15	09/04/15	20	16	40	ND		ug/Kg	426861	15245
Heptachlor epoxide	SW8081A	9/4/15	09/04/15	20	7.2	40	ND		ug/Kg	426861	15245
gamma-Chlordane	SW8081A	9/4/15	09/04/15	20	16	40	ND		ug/Kg	426861	15245
alpha-Chlordane	SW8081A	9/4/15	09/04/15	20	19	40	ND		ug/Kg	426861	15245
Endosulfan I	SW8081A	9/4/15	09/04/15	20	13	40	ND		ug/Kg	426861	15245
4,4'-DDE	SW8081A	9/4/15	09/04/15	20	10	40	ND		ug/Kg	426861	15245
Dieldrin	SW8081A	9/4/15	09/04/15	20	12	40	ND		ug/Kg	426861	15245
Endrin	SW8081A	9/4/15	09/04/15	20	17	40	ND		ug/Kg	426861	15245
4,4'-DDD	SW8081A	9/4/15	09/04/15	20	15	40	ND		ug/Kg	426861	15245
Endosulfan II	SW8081A	9/4/15	09/04/15	20	16	40	ND		ug/Kg	426861	15245
4,4'-DDT	SW8081A	9/4/15	09/04/15	20	13	40	ND		ug/Kg	426861	15245
Endrin aldehyde	SW8081A	9/4/15	09/04/15	20	9.2	40	ND		ug/Kg	426861	15245
Endosulfan sulfate	SW8081A	9/4/15	09/04/15	20	12	40	ND		ug/Kg	426861	15245
Methoxychlor	SW8081A	9/4/15	09/04/15	20	12	100	ND		ug/Kg	426861	15245
Endrin Ketone	SW8081A	9/4/15	09/04/15	20	12	40	ND		ug/Kg	426861	15245
Chlordane	SW8081A	9/4/15	09/04/15	20	210	400	ND		ug/Kg	426861	15245
Toxaphene	SW8081A	9/4/15	09/04/15	20	160	2000	ND		ug/Kg	426861	15245
TCMX (S)	SW8081A	9/4/15	09/04/15	20	52.5	139	0.000	D	%	426861	15245
DCBP (S)	SW8081A	9/4/15	09/04/15	20	50.2	139	0.000	D	%	426861	15245

NOTE: Reporting limits increased due to nature of the matrix (viscous/dark color extract)

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Scott Johns
Engeo (San Ramon)

Date Received: 09/02/15
Date Reported: 09/15/15

Client Sample ID:	Comp AG5(A-D @ 6-18")	**Lab Sample ID:**	1509030-029A
Project Name/Location:	Former Hayward Ford Site	**Sample Matrix:**	Soil
Project Number:	12288.000.000		
Date/Time Sampled:	09/02/15 /		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
The results shown below are reported using their MDL.											
alpha-BHC	SW8081A	9/4/15	09/04/15	10	6.1	20	ND		ug/Kg	426861	15245
gamma-BHC	SW8081A	9/4/15	09/04/15	10	6.1	20	ND		ug/Kg	426861	15245
beta-BHC	SW8081A	9/4/15	09/04/15	10	5.6	20	ND		ug/Kg	426861	15245
delta-BHC	SW8081A	9/4/15	09/04/15	10	4.0	20	ND		ug/Kg	426861	15245
Heptachlor	SW8081A	9/4/15	09/04/15	10	7.9	20	ND		ug/Kg	426861	15245
Aldrin	SW8081A	9/4/15	09/04/15	10	8.1	20	ND		ug/Kg	426861	15245
Heptachlor epoxide	SW8081A	9/4/15	09/04/15	10	3.6	20	5.1	J	ug/Kg	426861	15245
gamma-Chlordane	SW8081A	9/4/15	09/04/15	10	7.9	20	40		ug/Kg	426861	15245
alpha-Chlordane	SW8081A	9/4/15	09/04/15	10	9.4	20	49		ug/Kg	426861	15245
Endosulfan I	SW8081A	9/4/15	09/04/15	10	6.4	20	ND		ug/Kg	426861	15245
4,4'-DDE	SW8081A	9/4/15	09/04/15	10	5.1	20	15	J	ug/Kg	426861	15245
Dieldrin	SW8081A	9/4/15	09/04/15	10	5.8	20	23		ug/Kg	426861	15245
Endrin	SW8081A	9/4/15	09/04/15	10	8.6	20	ND		ug/Kg	426861	15245
4,4'-DDD	SW8081A	9/4/15	09/04/15	10	7.6	20	ND		ug/Kg	426861	15245
Endosulfan II	SW8081A	9/4/15	09/04/15	10	8.2	20	ND		ug/Kg	426861	15245
4,4'-DDT	SW8081A	9/4/15	09/04/15	10	6.7	20	9.7	J	ug/Kg	426861	15245
Endrin aldehyde	SW8081A	9/4/15	09/04/15	10	4.6	20	ND		ug/Kg	426861	15245
Endosulfan sulfate	SW8081A	9/4/15	09/04/15	10	5.8	20	ND		ug/Kg	426861	15245
Methoxychlor	SW8081A	9/4/15	09/04/15	10	6.1	50	ND		ug/Kg	426861	15245
Endrin Ketone	SW8081A	9/4/15	09/04/15	10	5.8	20	ND		ug/Kg	426861	15245
Chlordane	SW8081A	9/4/15	09/04/15	10	100	200	410		ug/Kg	426861	15245
Toxaphene	SW8081A	9/4/15	09/04/15	10	82	1000	ND		ug/Kg	426861	15245
TCMX (S)	SW8081A	9/4/15	09/04/15	10	52.5	139	113		%	426861	15245
DCBP (S)	SW8081A	9/4/15	09/04/15	10	50.2	139	99.1		%	426861	15245

NOTE: Reporting limits increased due to nature of the matrix (viscous/dark color extract)

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	1509030	**Prep Method:**	3546_TPHSG	**Prep Date:**	09/03/15	**Prep Batch:**	15232
Matrix:	Soil	**Analytical Method:**	SW8015B(M)	**Analyzed Date:**	09/03/15	**Analytical Batch:**	426843
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
TPH as Diesel (SG)	0.66	2.0	ND	
TPH as Motor Oil (SG)	1.0	10	1.6	
Pentacosane (S)			98.3	

Work Order:	1509030	**Prep Method:**	3546_TPHSG	**Prep Date:**	09/03/15	**Prep Batch:**	15232
Matrix:	Soil	**Analytical Method:**	SW8015B	**Analyzed Date:**	09/03/15	**Analytical Batch:**	426843
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
TPH as Diesel	0.575	2.0	ND	
TPH as Mineral Oil	1.35	10	ND	
TPH as Motor Oil	1.4	10	1.6	
Pentacosane (S)			98.3	

Work Order:	1509030	**Prep Method:**	3050	**Prep Date:**	09/02/15	**Prep Batch:**	15234
Matrix:	Soil	**Analytical Method:**	SW6010B	**Analyzed Date:**	09/03/15	**Analytical Batch:**	426833
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Antimony	0.20	5.0	ND	
Arsenic	0.25	1.7	ND	
Barium	0.07	5.0	0.43	
Beryllium	0.0800	2.0	ND	
Cadmium	0.055	1.0	0.085	
Chromium	0.050	5.0	0.15	
Cobalt	0.055	5.0	ND	
Copper	0.65	5.0	ND	
Lead	0.14	1.0	0.37	
Molybdenum	0.12	5.0	0.13	
Nickel	0.050	5.0	0.085	
Selenium	0.42	5.0	ND	
Silver	0.37	5.0	ND	
Thallium	0.49	5.0	ND	
Vanadium	0.18	5.0	ND	
Zinc	0.25	5.0	3.5	

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	1509030	**Prep Method:**	7471	**Prep Date:**	09/02/15	**Prep Batch:**	15236
Matrix:	Soil	**Analytical Method:**	SW7471A	**Analyzed Date:**	09/03/15	**Analytical Batch:**	426838
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Mercury	0.2	0.50	ND	

Work Order:	1509030	**Prep Method:**	5035	**Prep Date:**	09/03/15	**Prep Batch:**	15243
Matrix:	Soil	**Analytical Method:**	8260TPH	**Analyzed Date:**	09/03/15	**Analytical Batch:**	426840
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
TPH as Gasoline	30	100	53	
(S) 4-Bromofluorobenzene			105	

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	1509030	**Prep Method:**	3546_OCP	**Prep Date:**	09/04/15	**Prep Batch:**	15245
Matrix:	Soil	**Analytical Method:**	SW8081A	**Analyzed Date:**	09/04/15	**Analytical Batch:**	426861
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
alpha-BHC	0.61	2.0	ND		
gamma-BHC	0.61	2.0	ND		
beta-BHC	0.56	2.0	ND		
delta-BHC	0.40	2.0	ND		
Heptachlor	0.79	2.0	ND		
Aldrin	0.81	2.0	ND		
Heptachlor epoxide	0.36	2.0	ND		
gamma-Chlordane	0.79	2.0	ND		
alpha-Chlordane	0.94	2.0	ND		
Endosulfan I	0.64	2.0	ND		
4,4'-DDE	0.51	2.0	ND		
Dieldrin	0.58	2.0	ND		
Endrin	0.86	2.0	ND		
4,4'-DDD	0.76	2.0	ND		
Endosulfan II	0.82	2.0	ND		
4,4'-DDT	0.67	2.0	ND		
Endrin aldehyde	0.46	2.0	ND		
Endosulfan sulfate	0.58	2.0	ND		
Methoxychlor	0.61	5.0	ND		
Endrin Ketone	0.58	2.0	ND		
Chlordane	10	20	ND		
Toxaphene	8.2	100	ND		
TCMX (S)			103		
DCBP (S)			87.2		

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	1509030	**Prep Method:**	3546_OCP	**Prep Date:**	09/09/15	**Prep Batch:**	15265
Matrix:	Soil	**Analytical Method:**	SW8081A	**Analyzed Date:**	09/09/15	**Analytical Batch:**	426908
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
alpha-BHC	0.61	2.0	ND		
gamma-BHC	0.61	2.0	ND		
beta-BHC	0.56	2.0	ND		
delta-BHC	0.40	2.0	ND		
Heptachlor	0.79	2.0	ND		
Aldrin	0.81	2.0	ND		
Heptachlor epoxide	0.36	2.0	ND		
gamma-Chlordane	0.79	2.0	ND		
alpha-Chlordane	0.94	2.0	ND		
Endosulfan I	0.64	2.0	ND		
4,4'-DDE	0.51	2.0	ND		
Dieldrin	0.58	2.0	ND		
Endrin	0.86	2.0	ND		
4,4'-DDD	0.76	2.0	ND		
Endosulfan II	0.82	2.0	ND		
4,4'-DDT	0.67	2.0	ND		
Endrin aldehyde	0.46	2.0	ND		
Endosulfan sulfate	0.58	2.0	ND		
Methoxychlor	0.61	5.0	ND		
Endrin Ketone	0.58	2.0	ND		
Chlordane	10	20	ND		
Toxaphene	8.2	100	ND		
TCMX (S)			111		
DCBP (S)			84.6		

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	1509030	**Prep Method:**	NA	**Prep Date:**	NA	**Prep Batch:**	NA
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	09/03/15	**Analytical Batch:**	426840
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Dichlorodifluoromethane	4.4	10	ND		
Isopropyl Alcohol	4.6	10	ND		
Vinyl Chloride	2.6	10	ND		
Bromomethane	4.7	10	ND		
Trichlorofluoromethane	2.9	10	ND		
1,1-Dichloroethene	1.5	10	ND		
Freon 113	3.7	10	ND		
Methylene Chloride	2.0	50	ND		
trans-1,2-Dichloroethene	1.1	10	ND		
MTBE	2.6	10	ND		
tert-Butanol	21	50	ND		
Diisopropyl ether (DIPE)	2.2	10	ND		
1,1-Dichloroethane	1.3	10	ND		
ETBE	2.4	10	ND		
cis-1,2-Dichloroethene	1.8	10	ND		
2,2-Dichloropropane	1.2	10	ND		
Bromochloromethane	2.3	10	ND		
Chloroform	1.2	10	ND		
Carbon Tetrachloride	1.6	10	ND		
1,1,1-Trichloroethane	1.2	10	ND		
1,1-Dichloropropene	1.4	10	ND		
Benzene	1.5	10	ND		
TAME	2.1	10	ND		
1,2-Dichloroethane	1.9	10	ND		
Trichloroethylene	3.9	10	ND		
Dibromomethane	2.2	10	ND		
1,2-Dichloropropane	1.3	10	ND		
Bromodichloromethane	1.1	10	ND		
cis-1,3-Dichloropropene	1.4	10	ND		
Toluene	0.98	10	ND		
Tetrachloroethylene	1.8	10	ND		
trans-1,3-Dichloropropene	1.2	10	ND		
1,1,2-Trichloroethane	1.8	10	ND		
Dibromochloromethane	1.1	10	ND		
1,3-Dichloropropane	2.1	10	ND		
1,2-Dibromoethane	1.7	10	ND		
Ethyl Benzene	0.86	10	ND		
Chlorobenzene	4.2	10	ND		
1,1,1,2-Tetrachloroethane	0.86	10	ND		
m,p-Xylene	1.9	10	ND		
o-Xylene	0.66	5.0	ND		

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	1509030	**Prep Method:**	NA	**Prep Date:**	NA	**Prep Batch:**	NA
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	09/03/15	**Analytical Batch:**	426840
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Styrene	0.77	10	ND		
Bromoform	1.9	10	ND		
Isopropyl Benzene	1.2	10	ND		
n-Propylbenzene	1.4	10	ND		
Bromobenzene	1.2	10	ND		
1,1,2,2-Tetrachloroethane	3.0	10	ND		
1,3,5-Trimethylbenzene	1.1	10	ND		
1,2,3-Trichloropropane	3.3	10	ND		
4-Chlorotoluene	1.6	10	ND		
2-Chlorotoluene	1.6	10	ND		
tert-Butylbenzene	1.4	10	ND		
1,2,4-Trimethylbenzene	1.1	10	ND		
sec-Butyl Benzene	1.6	10	ND		
p-Isopropyltoluene	1.5	10	ND		
1,3-Dichlorobenzene	1.8	10	ND		
1,4-Dichlorobenzene	1.5	10	ND		
n-Butylbenzene	2.2	10	ND		
1,2-Dichlorobenzene	1.3	10	ND		
1,2-Dibromo-3-Chloropropane	4.2	10	ND		
Hexachlorobutadiene	2.6	10	ND		
1,2,4-Trichlorobenzene	2.1	10	ND		
Naphthalene	2.8	10	ND		
1,2,3-Trichlorobenzene	2.9	10	ND		
Ethanol	5.0	20	ND	TIC	
(S) Dibromofluoromethane			83.8		
(S) Toluene-d8			82.7		
(S) 4-Bromofluorobenzene			82.9		

Torrent LABORATORY, INC.

LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	1509030	**Prep Method:**	3546_TPHSG	**Prep Date:**	09/03/15	**Prep Batch:**	15232
Matrix:	Soil	**Analytical Method:**	SW8015B(M)	**Analyzed Date:**	09/03/15	**Analytical Batch:**	426843
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Diesel (SG)	0.66	2.0	ND	25	65.8	72.9	10.2	50.8 - 111	30	
Pentacosane (S)			1.6	200	81.5	86.8		49.9 - 144		

Work Order:	1509030	**Prep Method:**	3050	**Prep Date:**	09/02/15	**Prep Batch:**	15234
Matrix:	Soil	**Analytical Method:**	SW6010B	**Analyzed Date:**	09/03/15	**Analytical Batch:**	426833
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Antimony	0.20	5.0	ND	50	102	101	1.38	30.7 - 130	30	
Arsenic	0.25	1.7	ND	50	101	101	0.198	71 - 121	30	
Barium	0.07	5.0	0.43	50	102	99.1	2.92	70.2 - 130	30	
Beryllium	0.0800	2.0	ND	50	97.8	101	3.12	73.3 - 115	30	
Cadmium	0.055	1.0	0.085	50	102	93.3	8.91	68.7 - 110	30	
Chromium	0.050	5.0	0.15	50	103	102	0.976	76 - 116	30	
Cobalt	0.055	5.0	ND	50	101	100	0.995	57.4 - 122	30	
Copper	0.65	5.0	ND	50	102	98.5	3.51	74.8 - 119	30	
Lead	0.14	1.0	0.37	50	101	100	0.596	67.9 - 118	30	
Molybdenum	0.12	5.0	0.13	50	104	104	0.289	62.9 - 123	30	
Nickel	0.050	5.0	0.085	50	100	100	0.0300	61.5 - 122	30	
Selenium	0.42	5.0	ND	50	98.5	99.3	0.799	62 - 111	30	
Silver	0.37	5.0	ND	50	97.7	94.5	3.37	81.1 - 109	30	
Thallium	0.49	5.0	ND	50	106	105	1.14	39.2 - 125	30	
Vanadium	0.18	5.0	ND	50	103	99.5	3.51	65.8 - 122	30	
Zinc	0.25	5.0	3.5	50	98.3	97.1	1.25	59.9 - 122	30	

Work Order:	1509030	**Prep Method:**	7471	**Prep Date:**	09/02/15	**Prep Batch:**	15236
Matrix:	Soil	**Analytical Method:**	SW7471A	**Analyzed Date:**	09/03/15	**Analytical Batch:**	426838
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Mercury	0.2	0.50	ND	1.25	99.5	100	0.867	80.5 - 133	30	

Torrent LABORATORY, INC.

LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	1509030	**Prep Method:**	5035	**Prep Date:**	09/03/15	**Prep Batch:**	15243
Matrix:	Soil	**Analytical Method:**	8260TPH	**Analyzed Date:**	09/03/15	**Analytical Batch:**	426840
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Gasoline	30	100	53	1000	104	120	14.4	64.0 - 133.2	30	
(S) 4-Bromofluorobenzene			105	50	97.8	115		43.9 - 127		

Work Order:	1509030	**Prep Method:**	3546_OCP	**Prep Date:**	09/04/15	**Prep Batch:**	15245
Matrix:	Soil	**Analytical Method:**	SW8081A	**Analyzed Date:**	09/04/15	**Analytical Batch:**	426861
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
gamma-BHC	0.61	2.0	ND	40	105	101	3.52	56.9 - 120	30	
Heptachlor	0.79	2.0	ND	40	98.5	94.5	4.12	63.6 - 117	30	
Aldrin	0.81	2.0	ND	40	104	99.8	3.75	53 - 123	30	
Dieldrin	0.58	2.0	ND	40	102	98.0	3.68	44 - 130	30	
Endrin	0.86	2.0	ND	40	104	101	2.92	44.1 - 121	30	
4,4'-DDT	0.67	2.0	ND	40	94.1	90.8	3.64	52.8 - 134	30	
TCMX (S)			ND	100	109	105		52.5 - 139		
DCBP (S)			ND	100	95.7	93.7		50.2 - 139		

Work Order:	1509030	**Prep Method:**	3546_OCP	**Prep Date:**	09/09/15	**Prep Batch:**	15265
Matrix:	Soil	**Analytical Method:**	SW8081A	**Analyzed Date:**	09/09/15	**Analytical Batch:**	426908
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
gamma-BHC	0.61	2.0	ND	40	107	118	9.63	56.9 - 120	30	
Heptachlor	0.79	2.0	ND	40	96.6	111	14.3	63.6 - 117	30	
Aldrin	0.81	2.0	ND	40	102	117	13.5	53 - 123	30	
Dieldrin	0.58	2.0	ND	40	94.9	108	13.0	44 - 130	30	
Endrin	0.86	2.0	ND	40	97.3	108	10.9	44.1 - 121	30	
4,4'-DDT	0.67	2.0	ND	40	77.3	87.0	11.8	52.8 - 134	30	
TCMX (S)			ND	100	102	118		52.5 - 139		
DCBP (S)			ND	100	78.2	91.1		50.2 - 139		

Torrent LABORATORY, INC.

LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	1509030	**Prep Method:**	NA	**Prep Date:**	NA	**Prep Batch:**	NA
Matrix:	Soil	**Analytical Method:**	SW8260B	**Analyzed Date:**	09/03/15	**Analytical Batch:**	426840
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	1.5	10	ND	50	127	134	5.05	53.7 - 139	30	
Benzene	1.5	10	ND	50	121	133	9.79	66.5 - 135	30	
Trichloroethylene	3.9	10	ND	50	117	126	7.28	57.5 - 150	30	
Toluene	0.98	10	ND	50	119	128	6.92	56.8 - 134	30	
Chlorobenzene	4.2	10	ND	50	113	123	8.43	57.4 - 134	30	
(S) Dibromofluoromethane			ND	50	85.6	87.1		59.8 - 148		
(S) Toluene-d8			ND	50	85.5	84.6		55.2 - 133		
(S) 4-Bromofluorobenzene			ND	50	84.4	85.5		55.8 - 141		

Torrent LABORATORY, INC.

MS/MSD Summary Report

Raw values are used in quality control assessment.

Work Order:	1509030	**Prep Method:**	3546_OCP	**Prep Date:**	09/04/15	**Prep Batch:**	15245
Matrix:	**Soil**	**Analytical Method:**	SW8081A	**Analyzed Date:**	09/04/15	**Analytical Batch:**	426861
Spiked Sample:	1509030-029A						
Units:	ug/Kg						

Parameters	MDL	PQL	Sample Conc.	Spike Conc.	MS % Recovery	MSD % Recovery	MS/MSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Aldrin	8.1	20	0	40	93.7	90.7	3.32	53 - 123	30	
gamma-BHC	6.1	20	0	40	96.8	95.4	1.53	56.9 - 120	30	
Heptachlor	7.9	20	0	40	92.2	85.9	6.99	63.6 - 117	30	
Dieldrin	5.8	20	2.2964	40	81.4	81.0	0.256	44 - 130	30	
Endrin	8.6	20	0	40	98.4	96.8	1.70	44.1 - 121	30	
4,4'-DDT	6.7	20	0	40	87.3	83.1	4.94	52.8 - 134	30	
TCMX (S)				100	104	106		52.5 - 139	,"	
DCBP (S)				100	86.1	94.7		50.2 - 139	,"	

Laboratory Qualifiers and Definitions

DEFINITIONS:

Accuracy/Bias (% Recovery) - The closeness of agreement between an observed value and an accepted reference value.
Blank (Method/Preparation Blank) -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.
Duplicate - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)
Laboratory Control Sample (LCS ad LCSD) - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.
Matrix - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)
Matrix Spike (MS/MSD) - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.
Method Detection Limit (MDL) - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero
Practical Quantitation Limit (PQL) - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.
Precision (%RPD) - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates
Surrogate (S) or (Surr) - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis
Tentatively Identified Compound (TIC) - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.
Units: the unit of measure used to express the reported result - **mg/L** and ***mg/Kg*** (equivalent to PPM - parts per million in **liquid** and ***solid***), **ug/L** and ***ug/Kg*** (equivalent to PPB - parts per billion in **liquid** and ***solid***), **ug/m3**, ***mg.m3***, **ppbv** and ***ppmv*** (all units of measure for reporting concentrations in air), **%** (equivalent to 10000 ppm or 1,000,000 ppb), **ug/Wipe** (concentration found on the surface of a single Wipe usually taken over a 100cm2 surface)

LABORATORY QUALIFIERS:

B - Indicates when the anlayte is found in the associated method or preparation blank
D - Surrogate is not recoverable due to the necessary dilution of the sample
E - Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.
H- Indicates that the recommended holding time for the analyte or compound has been exceeded
J- Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative
NA - Not Analyzed
N/A - Not Applicable
NR - Not recoverable - a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added
R- The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts
S- Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case narrative
X -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.

Sample Receipt Checklist

Client Name: Engeo (San Ramon)

Project Name: Former Hayward Ford Site

Work Order No.: 1509030

Date and Time Received: 9/2/2015 19:40

Received By: pd

Physically Logged By: ldi

Checklist Completed By: ldi

Carrier Name: Client Drop Off

Chain of Custody (COC) Information

Chain of custody present?	Yes
Chain of custody signed when relinquished and received?	Yes
Chain of custody agrees with sample labels?	Yes
Custody seals intact on sample bottles?	Not Present

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Not Present
Shipping Container/Cooler In Good Condition?	Yes
Samples in proper container/bottle?	Yes
Samples containers intact?	Yes
Sufficient sample volume for indicated test?	Yes

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes			
Container/Temp Blank temperature in compliance?	No	Temperature:	13	°C
Water-VOA vials have zero headspace?	No VOA vials submitted			
Water-pH acceptable upon receipt?	N/A			

pH Checked by: n/a

pH Adjusted by: n/a

Temperature upon receipt was out compliance. Chilling has begun.

Login Summary Report

Client ID: TL5123 Engeo (San Ramon)
Project Name: Former Hayward Ford Site
Project # : 12288.000.000
Report Due Date: 9/14/2015

QC Level:
TAT Requested: 3 day:25
Date Received: 9/2/2015
Time Received: 19:40

Comments:

Work Order # : ***1509030***

WO Sample ID	Client Sample ID	Collection Date/Time	Matrix	Scheduled Disposal	Sample On Hold	Test On Hold	Requested Tests	Subbed
1509030-001A	AG1-A @ 6-18"	09/02/15 17:12	Soil	02/29/16			S_6010BAs/Pb Composite	
Sample Note:	As							
1509030-002A	AG1-B @ 6-18"	09/02/15 17:31	Soil	02/29/16			Composite	
1509030-003A	AG1-C @ 6-18"	09/02/15 9:20	Soil	02/29/16			Composite	
1509030-004A	AG1-D @ 6-18"	09/02/15 9:56	Soil	02/29/16			Composite	
1509030-005A	AG2-A @ 6-18"	09/02/15 10:19	Soil	02/29/16			Composite	
1509030-006A	AG2-B @ 6-18"	09/02/15 17:10	Soil	02/29/16			S_6010BAs/Pb Composite	
1509030-007A	AG2-C @ 6-18"	09/02/15 17:23	Soil	02/29/16			Composite	
1509030-008A	AG2-D @ 6-18"	09/02/15 17:25	Soil	02/29/16			Composite	
1509030-009A	AG3-A @ 6-18"	09/02/15 17:01	Soil	02/29/16			S_8081AOCP Composite	
1509030-010A	AG3-B @ 6-18"	09/02/15 10:47	Soil	02/29/16			S_8081AOCP Composite	
1509030-011A	AG3-C @ 6-18"	09/02/15 16:45	Soil	02/29/16			S_6010BAs/Pb Composite	
1509030-012A	AG3-D @ 6-18"	09/02/15 16:53	Soil	02/29/16			S_8081AOCP S_8081AOCP Composite	
1509030-013A	AG4-A @ 6-18"	09/02/15 17:43	Soil	02/29/16			Composite	
1509030-014A	AG4-B @ 6-18"	09/02/15 11:39	Soil	02/29/16			Composite	

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Login Summary Report

Client ID: TL5123 Engeo (San Ramon)
Project Name: Former Hayward Ford Site
Project # : 12288.000.000
Report Due Date: 9/14/2015

QC Level:
TAT Requested: 3 day:25
Date Received: 9/2/2015
Time Received: 19:40

Comments:

Work Order # : ***1509030***

WO Sample ID	Client Sample ID	Collection Date/Time	Matrix	Scheduled Disposal	Sample On Hold	Test On Hold	Requested Tests	Subbed
1509030-015A	AG4-C @ 6-18"	09/02/15 11:50	Soil	02/29/16			Composite	
1509030-016A	AG4-D @ 6-18"	09/02/15 17:40	Soil	02/29/16			S_6010BAs/Pb Composite	
1509030-017A	AG5-A @ 6-18"	09/02/15 18:15	Soil	02/29/16			Composite	
1509030-018A	AG5-B @ 6"-12"	09/02/15 18:16	Soil	02/29/16			S_6010BAs/Pb Composite	
1509030-019A	AG5-C @ 6"-12"	09/02/15 18:17	Soil	02/29/16			Composite	
1509030-020A	AG5-d @ 6"-12"	09/02/15 18:18	Soil	02/29/16			Composite	
1509030-021A	AG6-A @ 6-18"	09/02/15 16:30	Soil	02/29/16			Hold Samples	
1509030-022A	S1 @ 4'	09/02/15 10:00	Soil	02/29/16			S_6010BCAM17 S_GCMS-GRO S_TPHDOSG S_8260Full S_7471BHG	
1509030-023A	S2 @ 5'	09/02/15 17:41	Soil	02/29/16			S_6010BCAM17 S_TPHDOSG S_7471BHG S_8260Full S_GCMS-GRO	
1509030-024A	S3 @ 5'	09/02/15 17:50	Soil	02/29/16			S_6010BCAM17 S_7471BHG S_GCMS-GRO S_8260Full S_TPHDOSG	
1509030-025A	Comp AG1(A-D @ 6-18")	09/02/15	Soil	02/29/16			S_8081AOCP	
1509030-026A	Comp AG2(A-D @ 6-18")	09/02/15	Soil	02/29/16				

Login Summary Report

Client ID: TL5123 Engeo (San Ramon)
Project Name: Former Hayward Ford Site
Project # : 12288.000.000
Report Due Date: 9/14/2015

QC Level:
TAT Requested: 3 day:25
Date Received: 9/2/2015
Time Received: 19:40

Comments:

Work Order # : ***1509030***

WO Sample ID	Client Sample ID	Collection Date/Time	Matrix	Scheduled Disposal	Sample On Hold	Test On Hold	Requested Tests	Subbed
1509030-027A	Comp AG3(A-D @ 6-18")	09/02/15	Soil	02/29/16			S_8081AOCP	
1509030-027C	Comp AG3(A-D @ 6-18")	09/02/15	Soil	02/29/16			S_8081AOCP	
1509030-028A	Comp AG4(A-D @ 6-18")	09/02/15	Soil	02/29/16			S_8081AOCP	
1509030-029A	Comp AG5(A-D @ 6-18")	09/02/15	Soil	02/29/16			S_8081AOCP	

Torrent LABORATORY, INC.

CHAIN OF CUSTODY RECORD

1509030

PROJECT NUMBER 12288.000.000 | PROJECT NAME Former Hayward Ford Site

SAMPLED BY: (SIGNATURE/PRINT) Kelsey Gerhart

PROJECT MANAGER: (SIGNATURE/PRINT) Scott Johns

ROUTING: E-MAIL kgerhart@engeo.com , sjohns@engeo.com HARD COPY

SAMPLE NUMBER	DATE	TIME	MATRIX	NUMBER OF CONTAINERS	CONTAINER SIZE	PRESERVATIVE	Pesticides (8081)	Arsenic (6010)	TPH-d/mo (with silica gel cleanup) (8015)	CAM 17 (6010and 7471)	TPH-g and VOCs (8260B)	SVOC (8270)	Asbestos (Carb 435 1,000 point count)	PCBs (8082)	Pesticides (8081)	REMARKS REQUIRED DETECTION LIMITS
AG1-A @6"-18"	9/2/2015	5:12	Soil	-001A	liner	-		X								
AG1-B @6"-18"	9/2/2015	5:31	Soil	-002A	liner	-	X									
AG1-C @6"-18"	9/2/2015	9:20	Soil	-003A	liner	-										
AG1-D @6"-18"	9/2/2015	9:56	Soil	-004A	liner	-										
AG2-A @6"-18"	9/2/2015	10:19	Soil	-005A	liner	-										
AG2-B @6"-18"	9/2/2015	5:10	Soil	-006A	liner	-		X								
AG2-C @6"-18"	9/2/2015	5:23	Soil	-007A	liner	-	X									
AG2-D @6"-18"	9/2/2015	5:25	Soil	-008A	liner	-										
AG3-A @6"-18"	9/2/2015	5:01	Soil	-009A	liner	-										
AG3-B @6"-18"	9/2/2015	10:47	Soil	-010A	liner	-										
AG3-C @6"-18"	9/2/2015	4:45	Soil	-011A	liner	-	X	X								
AG3-D @6"-18"	9/2/2015	4:53	Soil	-012A	liner	-										
AG4-A @6"-18"	9/2/2015	5:43	Soil	-013A	liner	-										
AG4-B @6"-18"	9/2/2015	11:39	Soil	-014A	liner	-										
AG4-C @6"-18"	9/2/2015	11:50	Soil	-015A	liner	-	X									
AG4-D @6"-18"	9/2/2015	5:46	Soil	-016A	liner	-		X								

RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)
Kelsey Gerhart	9/4/15 7:40	Pankaj		
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)		

REMARKS Standard TAT
3 DAY STANDARD

DISTRIBUTION: ORIGINAL ACCOMPANIES SHIPMENT; COPY TO PROJECT FIELD FILES

ENGEO INCORPORATED
2010 CROW CANYON PLACE SUITE 250
SAN RAMON, CALIFORNIA 94583
(925) 866-9000 FAX (925) 866-0199
WWW.ENGEO.COM

REC LI LBL LIR 13 C

Torrent LABORATORY, INC.

1509030

CHAIN OF CUSTODY RECORD

PROJECT NUMBER 12288.000.000 | PROJECT NAME Former Hayward Ford Site

SAMPLED BY: (SIGNATURE/PRINT) Kelsey Gerhart

PROJECT MANAGER: (SIGNATURE/PRINT) Scott Johns

ROUTING: E-MAIL kgerhart@engeo.com, sjohns@engeo.com HARD COPY

SAMPLE NUMBER	DATE	TIME	MATRIX	NUMBER OF CONTAINERS	CONTAINER SIZE	PRESERVATIVE	Pesticides (8081)	Arsenic (6010)	TPH-d/mo (with silica gel cleanup) (8015)	CAM 17 (6010and 7471)	TPH-g and VOCs (8260B)	TO-15	REMARKS REQUIRED DETECTION LIMITS
AG5-A @16"-18"	9/2/2015	10:15	Soil	-17A	liner		X	X				029A	
AG5-B @16"-12"	9/2/2015	10:16	Soil	-018A	liner								
AG5-C @16"-12"	9/2/2015	10:17	Soil	-019A	liner								
AG5-D @16"-12"	9/2/2015	10:18	Soil	-020A	liner								
AG6 @16"-18"	9/2/2015	4:30	Soil	-021A	liner		HOLD						
S1@ 4'	9/2/2015	10:00	Soil	-022A	liner				X	X	X		
S2@ 5'	9/2/2015	5:41	Soil	-023A	liner				X	X	X		
S3@ 5'	9/2/2015	5:50	Soil	-024A	liner				X	X	X		
SV-1	9/2/2015	1:00	Soil Vapor		liner Canisters							X	
~~SV-2~~	~~9/2/2015~~	NO	~~Soil~~ Temporary		liner							X	
SV-3	9/2/2015	2:11	Soil Vapor		liner							X	
SV-4	9/2/2015	4:00	Soil Vapor		liner							X	
SV-5	9/2/2015	3:30	Soil Vapor		liner							X	
SV-6	9/2/2015	2:45	Soil Vapor		liner							X	

5 DAY STANDARD

RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)
Kelsey Gerhart	9/2/15 7:40	Pankaj		
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)		

REMARKS
Lead Detection 1,1 DFA
Standard TAT

DISTRIBUTION: ORIGINAL ACCOMPANIES SHIPMENT; COPY TO PROJECT FIELD FILES

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WWW.ENGEO.COM

13 C

REC LI LBL LIR

Torrent LABORATORY, INC.

Torrent LABORATORY, INC.

Change Order

Work Order: 1509030 **Serial #:** CO15-0217 **Print Date:** 9/9/2015

Project Name: Former Hayward Ford Site

Client: Engeo (San Ramon) **Requested By:** Kelsey Gerhardt

	Requested Date	Requested Time	Extended Price
Analyze samples 009-012 for OCPs; STD 3 day TAT	9/9/2015	3:30:00PM	

483 Sinclair Frontage Rd., Milpitas, CA 95035 | *tel:* 408.263.5258 | *fax:* 408.263.8293 | www.torrentlab.com

APPENDIX F

Stormwater Control Plan

Stormwater Control Plan

MISSION CROSSINGS

HAYWARD, CALIFORNIA

September 2016

For
Stormwater C.3 Guideline Compliance



Prepared For:

MLC HOLDINGS, INC

Prepared By:

Carlson, Barbee & Gibson, Inc.
CIVIL ENGINEERS • SURVEYORS • PLANNERS

2633 CAMINO RAMON, SUITE 350 • SAN RAMON, CA 94583 • (925) 866-0322 • www.cbandg.com

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APPENDIX

Form 1 Stormwater Requirements Checklist

I. PROJECT SETTING

A. Project Description

This Stormwater Control Plan (SCP) for the proposed Dollar Place at 25501 & 25551 Mission Boulevard and 671 Berry Avenue is submitted to the Department of Public Works of the City of Hayward as an accompaniment to the Vesting Tentative Map and Site Plan Review applications. The SCP provides recommendations on the use of permanent Best Management Practices (BMP) for the proposed project. BMP technical requirements are presented in the Alameda County C.3 Stormwater Technical Guidance (SWTG) Handbook Version 4.0 dated May 14, 2013.

The property is bound Mission Boulevard to the east, a Bay Area Rapid Transit (BART) right-of-way to the west and Torrano Avenue to the south in the city of Hayward, CA. Surrounding features include residential development to the north and commercial development to the south of the property.

The improvements to the 9.68 acre Dollar Place consists a multi-family residential development that includes 27 buildings with a total of 144 units and landscaped areas and a hotel that includes 93 units.

B. Site Features and Conditions

Existing Conditions

The existing site is currently zoned as MT-T4-2, Urban General Zone, and is occupied by a car dealership with associated parking. The paved areas of the property are used to store and park vehicles. The existing site consists of approximately 89% impervious materials made up of existing building, asphalt drive aisles, and parking. The remaining 11% consists of pervious landscaped area.

The site generally slopes from the northeast side of the site to the southwest side where storm water is conveyed through an existing Alameda County Flood Control drainage channel. Elevations range from approximately 63.0 at the northeast side of the site to approximately 61.0 at the southwest side of the site. The existing surface types and corresponding areas are shown in Table 1 and the existing storm drain facilities are identified in Figure 4.

Soil information was obtained from a soils report titled, “Geotechnical Feasibility Assessment – Former Hayward Ford Site”, dated September 11, 2015. The soil types found at the project site generally consisted of stiff to hard clayey silts and silty clays with interbedded lenses of medium density silty sand and sandy silt to the maximum depth explored of approximately 50 feet below the ground surface. Groundwater was encountered between 15 to 30 feet below the ground surface.

Proposed Conditions

Upon construction of the proposed improvements, approximately 7.37 acres (76%) of the site will be covered by impervious surface and about 2.31 acres (24%) will be covered by landscaped areas including lawns, shrubs, trees, and bioretention ponds. A portion of the impervious walkway is treated by the landscape area and is considered self-retaining and therefore excluded from the area to be treated by bioretention ponds.

All walkways within the bio-treated areas will be sloped to drain into the surrounding landscaping and bioretention ponds.

The proposed on-site drainage system will consist of newly developed pervious and impervious areas shown in Figure 5 while the corresponding pervious and impervious surfaces within each area are presented in Table 1. With these measures in place, 100% of stormwater runoff will be treated before entering the public stormwater systems.

Proposed on-site drainage system improvements for the site will tie into the existing 57 inch storm drain system on the south side of the project site.

C. Opportunities and Constraints for Stormwater Control

Opportunities

- *Landscaping* – The existing site provides very little landscaping or permeable surfaces which provides an opportunity to drastically improve site conditions with the addition of landscaped areas.

Constraints

- *High Density Land Use* - The site will be largely covered by rooftops and paving with limited open space for use of stormwater control and site aesthetics (i.e. landscaping).

D. Hydromodification Management Requirements

The site is located in an area that has been identified as ***not susceptible*** according to the Hydromodification Management Susceptibility Map shown in Figure 3 and therefore does not require Hydromodification Management (HM). Also, the impervious area in the proposed conditions is less than the impervious area in existing condition.

E. Protection of Sensitive Areas

Based on current conditions of the site, the area has ***not*** been identified as one that will impact or disturb any wetlands, steep slopes, or special status species.

II. MEASURES TO LIMIT IMPERVIOUSNESS

A. Measures to Cluster Development and Protect Natural Resources

The proposed project was planned with water quality treatment goals at its forefront. Every effort will be made to minimize impervious surfaces and redirect runoff to less impervious surfaces. The Stormwater Control Plan has identified the following design strategies which will aid in achieving these goals.

- The site incorporates 27 buildings with 144 multi-family residential units with a 2 car garage in each unit. The in-unit garage parking limits the amount of impervious area that may otherwise be associated with additional on-street parking spaces.

- Each residential unit consists of 3 floors. This density reduces the development footprint.

- The residential units are arranged in a way to provide maximum open space and landscaped areas.

B. Measures to Limit Directly Connected Impervious Areas

The proposed site layout and building locations offer the possibility of directing stormwater runoff to landscaped areas.

Approximately 2.31 acres (24%) of the proposed project will be covered by landscaped or pervious surfaces which include lawn, shrubs, and trees.

- The project shall be designed to direct runoff from impervious surfaces into bioretention areas.

- Pedestrian pathways within the landscape areas shall be sloped to drain towards the adjacent landscaped and bioretention areas.

C. Selection of Paving Materials

Conventional concrete and asphalt have been selected for use throughout this site.

III. SELECTION AND PRELIMINARY DESIGN OF STORMWATER TREATMENT BMP'S

A. Hydrology

Runoff coefficients for existing and proposed on-site conditions were based on the Alameda County C.3 Stormwater Technical Guidance Handbook as shown in Table 2.

A rainfall intensity value of *0.2 inches per hour* is used for treatment flows based on the uniform intensity approach. The weighted runoff coefficient is based on the imperviousness percentage for each particular drainage area. The Rational Method is used to calculate minimum treatment flows where required for sizing flow-based BMP's.

B. Recommended Permanent BMP's

This SCP has identified Bioretention areas as the best method to fulfill on-site treatment requirements and the recommended BMP solutions are shown in Figure 6. These BMP's will provide a level of treatment that meets the C.3 requirements for the runoff generated by the project improvements:

- 9 areas will use bioretention BMP's with adjacent roof, patio, driveway and street runoff directing into specified areas.

<u>Bioretention</u>

Bioretention treatment areas are designed to filter pollutants from stormwater runoff from adjacent roofs, streets and landscape areas using a combination of vegetation, ponding, permeable planting soil, and a subdrain system. Bioretention treatment areas, which will receive runoff through curb cuts and the local area drain system, will be located throughout the site and will ultimately discharge into the public storm drain system. The local area drain system will collect runoff from building downspouts and pathways prior to discharging into the bioretention areas. Street runoff will discharge directly into the bioretention areas via curb cuts.

Bioretention treatment areas will be sized to maximize treatment for tributary areas. Runoff that is directed into the bioretention areas will infiltrate through a minimum of 18" of biotreatment soil (as identified in the SWTG). The treatment soil and the planting material to be used within the bioretention treatment areas must have an infiltration rate of 5 inches per hour to meet the minimum infiltration criteria as described in the SWTG Handbook bioretention design and sizing guidelines.

Each bioretention area is equipped with a bypass pipe that will direct excess water directly into the drainage system. In all cases, the rim of the overflow pipe will be set to meet the minimum ponding depth requirements for each individual bioretention area.

Bioretention areas will be responsible for the treatment of 100% of the site with a total drainage area of approximately 9.68 acres.

Preliminary Treatment Calculations

Preliminary data for the bioretention areas are tabulated and shown in Table 3.

IV. BMP MAINTENANCE REQUIREMENTS

A. Recommended BMP Maintenance

Proper operation and maintenance of stormwater management facilities will be the responsibility of the Home Owners Association (HOA).

The applicant will prepare and submit, for the City's review, at final map, an acceptable Stormwater Control Operation and Maintenance Plan prior to the completion of construction and will execute a Stormwater Management Facilities Operation and Maintenance Agreement before sale, transfer, or permanent occupancy of the site. The applicant accepts the responsibility for maintenance of stormwater management facilities until such responsibility is transferred to another entity.

Treatment of BMP's requires minimum maintenance similar to that for any landscape areas. BMP's must be regularly maintained to insure that they continue to be effective and do not cause flooding or other harmful nuisances. The maintenance requirements are:

<u>Bioretention</u>

- Limit the use of fertilizers and/or pesticides. Mosquito larvicides should be applied only when absolutely necessary and follow the principles of integrated pest management.
- Replace and amend plants and soils as necessary to insure the planters are effective and attractive. Plants must remain healthy and trimmed if overgrown. Soils must be maintained to efficiently filter the stormwater.
- Visually inspect for ponding water to ensure that filtration is occurring.
- After all major storm events remove trash, inspect drain pipes and bubble-up risers for obstructions and remove if necessary.
- Continue general landscape maintenance, including pruning and cleanup throughout the year.
- Irrigate throughout the dry season. Irrigation should be provided with sufficient quantity and frequency to allow plants to thrive.
- Excavate, clean and or replace filter media (sand, gravel, topsoil) to insure adequate infiltration rate (annually or as needed).

Mosquito Control

In order to suppress mosquito's in the area special maintenance practices will need to be implemented. These include:

- Monitoring stagnant water and assuring proper drainage of water treatment areas within 5 days.
- Clearing of debris form water treatment areas.
- Removal of dead or excess vegetation.

V. SOURCE CONTROL MEASURES

A. Pollutant Source Areas

Items that have been identified to cause pollution within the site include pesticides, fertilizers, and refuse.

B. Permanent Source Control BMP's

- *On-Site Drain Inlets* – On-site inlets will be impressed with "NO DUMPING-DRAINS TO BAY."
- *Landscape / Outdoor Pesticide Use* – Landscaping will be designed to minimize required irrigation and runoff, to promote surface infiltration, and to minimize the use of fertilizers and pesticides that can contribute to stormwater pollution. Where possible, pest-resistant plants will be selected, especially for locations adjacent to hardscape. Plants will be selected appropriate to site soils, slopes, climate, sun, wind, rain, land use, air movement, ecological consistency, and plant interactions.
- *Refuse* –All trash will be kept in individual trash bins either in the garage or between single family homes.

C. Operational Source Control BMP's

- *Private Streets* – Owner of private streets and storm drains shall prepare and implement a plan for street sweeping of paved private roads and cleaning of all storm drain inlets.
- *Paved Sidewalks and Parking Lots* – Sidewalks and parking lots shall be swept regularly to prevent the accumulation of litter and debris.

- *Landscape / Outdoor Pesticide Use* – All on-site landscaping is to be privately maintained by the property owner using Integrated Pest Management (IPM) principles, with minimal or no use of pesticides.

VI. PERMITTING AND CODE COMPLIANCE ISSUES

There are no known conflicts between the proposed Stormwater Control Plan and the City of Hayward ordinances and policies. Any conflicts that are found will be resolved through the design review process or during subsequent permitting.

Tables

Table 1 - Site Data

EXISTING CONDITION

Surface Type	Area (AC)	Percentage	C
Impervious			
Roof	1.41	14.5%	0.90
Concrete/Asphalt	7.19	74.0%	0.75
Total Impervious	*8.60*	*88.5%*	*0.77*
Pervious			
Landscape	1.12	11.5%	0.10
Total Pervious	*1.12*	*11.5%*	*0.10*
Total	**9.72**	**100%**	**0.70**

PROPOSED CONDITION

Surface Type	Area (AC)	Percentage	C
Impervious			
Roof	3.40	35.1%	0.90
Concrete	1.16	12.0%	0.80
Asphalt	2.81	29.0%	0.70
Total Impervious	*7.37*	*76.1%*	*0.81*
Pervious			
Landscape	2.31	23.9%	0.10
Total Pervious	*2.31*	*23.9%*	*0.10*
Total	**9.68**	**100%**	**0.64**

TABLE 2 - Estimated Runoff Coefficients During Small Storms

(From Alameda County C.3 Stormwater Technical Guide, May 14, 2013)

Surface	Runoff Coefficient (C Factor)
Roofs	0.90
Concrete, Grouted Pavers	0.80
Asphalt	0.70
Cobbles	0.30
Natural Stone *(without grout)*	0.13
Pervious Concrete	0.10
Pervious Asphalt	0.10
Pervious Concrete Brick *(without grout)*	0.10
Turf Block	0.10
Unit Pavers on Sand	0.10
Crushed Aggregate	0.10
Grass	0.10
Grass over Porous Plastic	0.05
Gravel over Porous Plastic	0.05

Note:

The above C-Factors were estimated by selecting the lower range of the best available C-Factor for each paving surface. These C-Factors are only appropriate for small storm treatment BMP design and should not be used for flood control sizing.

Table 3 - Bioretention Area Data

Uniform Intensity	0.2 in/hr
Sizing Factor	0.04

Drainage Area Designation	Proposed Tributary Drainage Area (SF)	Pervious Tributary Area (SF)	Impervious Tributary Area (SF)	Minimum Surface Area Required (SF)	Total Available Surface Area (SF)	% of Required Treatment Area Provided
A	120,495	3,805	116,690	4,683	5,025	107%
B	150,520	57,395	93,125	3,955	4,005	101%
C	9,030	2,760	6,270	262	295	113%
D	18,613	8,893	9,720	424	445	105%
E	5,122	1,762	3,360	141	150	106%
F	16,970	2,698	14,272	582	620	107%
G	7,729	1,766	5,963	246	260	106%
AA	54,459	11,099	43,360	1,779	1,800	101%
BB	38,384	10,144	28,240	1,170	1,170	100%

Note:

The equivalent sizing factor of 0.04 assumes that the treatment BMP can infiltrate runoff from a 100% impervious area at 0.2 inches per hour intensity through media filtration with a minimum infiltration rate of 5 inches per hour (0.2/5) = 0.04

Figures



FIGURE 1
VICINITY MAP
MISSION CROSSINGS

CITY OF HAYWARD ALAMEDA COUNTY CALIFORNIA

DATE: SEPTEMBER 2016

SCALE: NOT TO SCALE

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FIGURE 2
AERIAL EXHIBIT
MISSION CROSSINGS

CITY OF HAYWARD ALAMEDA COUNTY CALIFORNIA

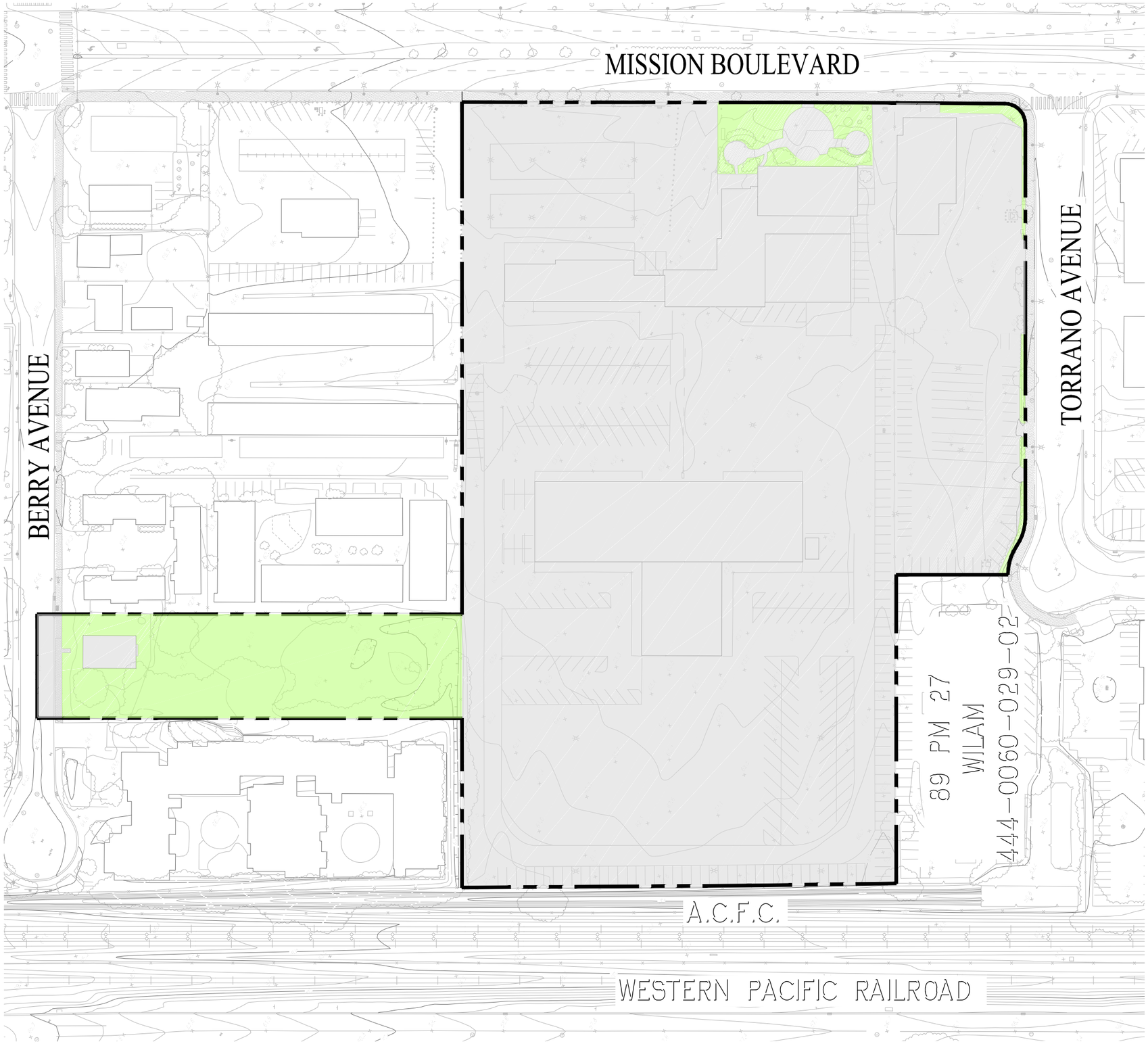
DATE: SEPTEMBER 2016

SCALE: 1" = 100'

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LEGEND

- IMPERVIOUS SURFACE (8.60± ACRES)
- PERVIOUS SURFACE (1.12± ACRES)
- EXISTING SITE BOUNDARY (9.72± ACRES)

FIGURE 4
EXISTING CONDITIONS

MISSION CROSSINGS

CITY OF HAYWARD ALAMEDA COUNTY CALIFORNIA

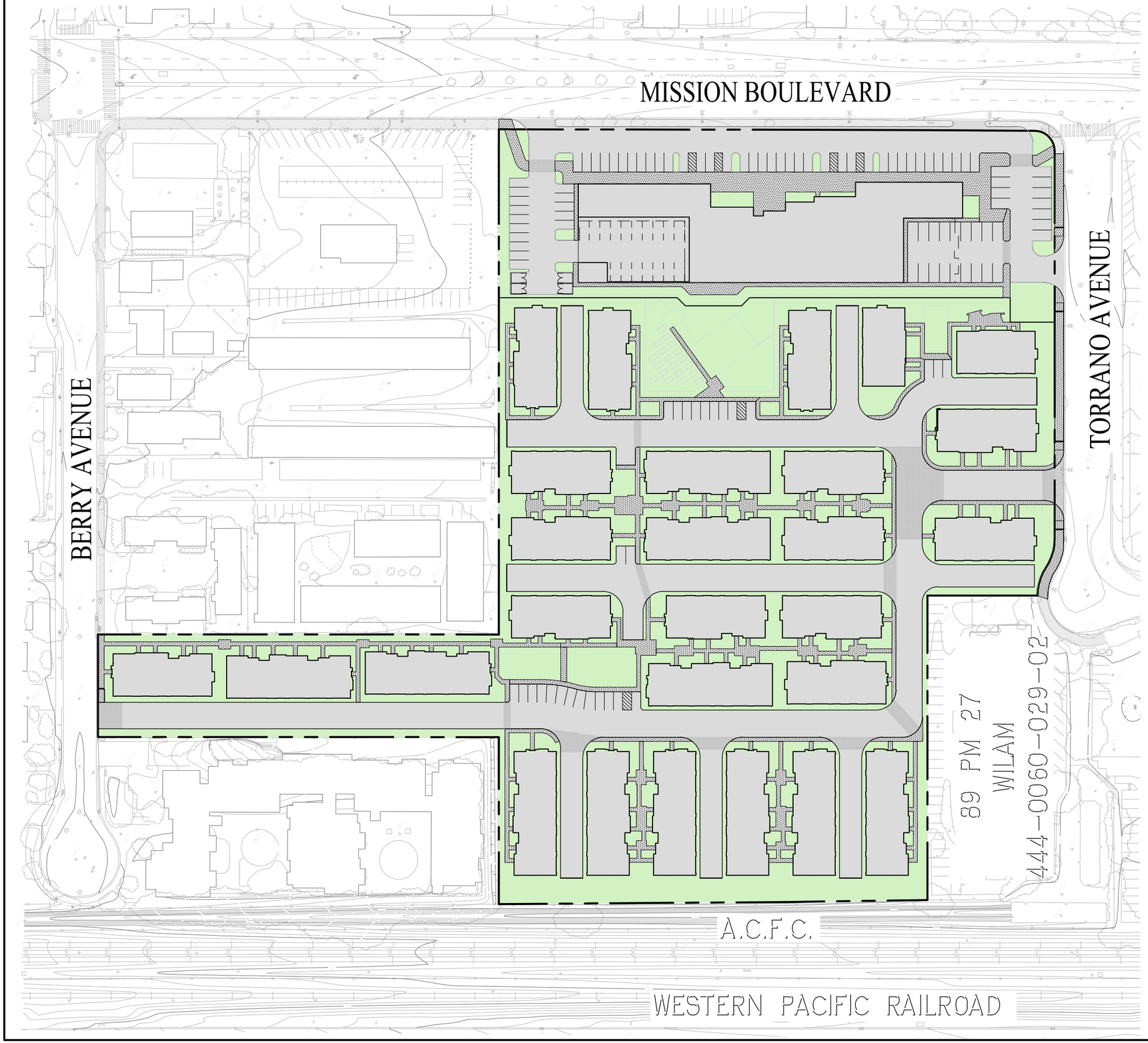
DATE: SEPTEMBER 2016

SCALE: 1"=100'

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LEGEND

IMPERVIOUS SURFACE
(7.37± ACRES)

PERVIOUS SURFACE
(2.31± ACRES)

PROPOSED SITE BOUNDARY
(9.68± ACRES)

FIGURE 5
PROPOSED CONDITIONS

MISSION CROSSINGS

CITY OF HAYWARD ALAMEDA COUNTY CALIFORNIA

DATE: SEPTEMBER 2016

SCALE: 1" = 100'

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G:\2530-000\ACAD\SURVEY\SWCP\FIG 5 - PROPOSED CONDITIONS.DWG

MISSION BOULEVARD

BERRY AVENUE

TORRANO AVENUE

HOTEL

WATER QUALITY PUMP STRUCTURE

A.C.F.C.

WESTERN PACIFIC RAILROAD

89 PM 27 WILAM 444-0060-029-02

EX 57" SD

LEGEND

- PROJECT BOUNDARY
- DRAINAGE AREA BOUNDARY
- PERVIOUS AREA
- IMPERVIOUS AREA TREATED BY BIORETENTION
- BIORETENTION AREA
- (A) DRAINAGE AREA ID
- SD — STORM DRAIN LINE
- SD-T — TREATED STORM DRAIN LINE

FIGURE 6
STORMWATER CONTROL PLAN

MISSION CROSSINGS

CITY OF HAYWARD ALAMEDA COUNTY CALIFORNIA

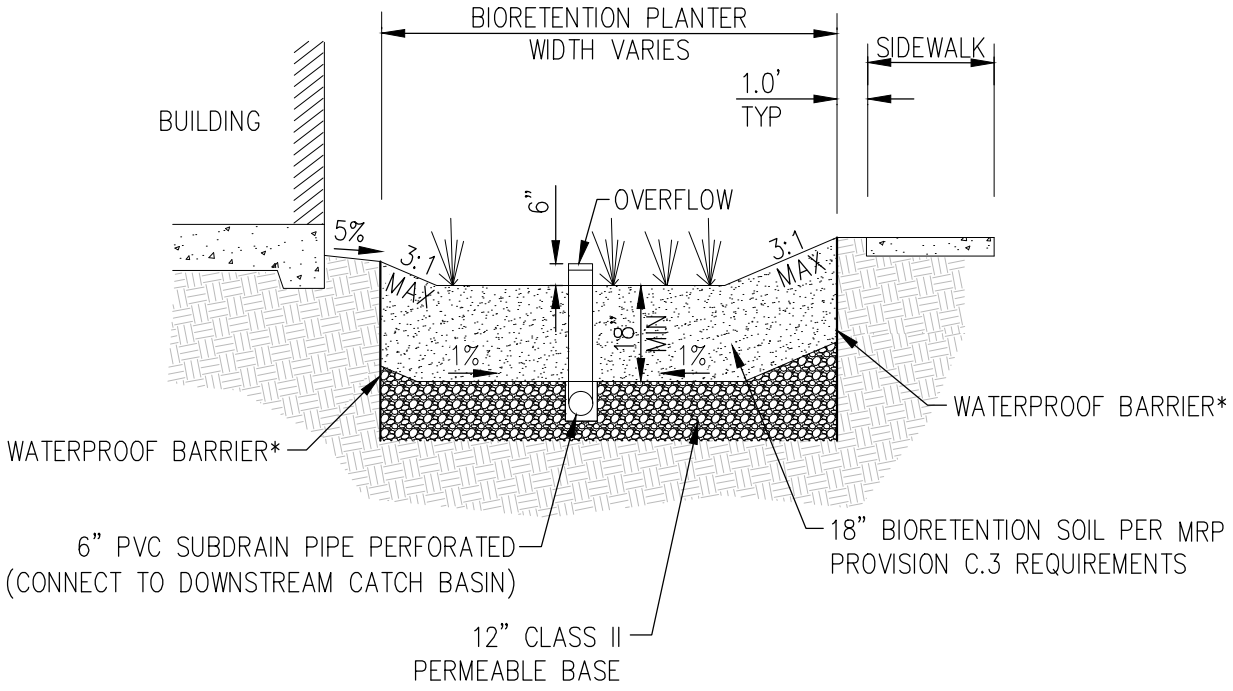
DATE: SEPTEMBER 2016

SCALE: 1" = 100'

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G:\2530-000\ACAD\SURVEY\SWCP\FIG 6 - STORMWATER CONTROL PLAN.DWG



NOTES:

1. * INSTALL DEEPENED CURB IN ADDITION TO WATERPROOF BARRIER WHERE NECESSARY PER GEOTECHNICAL RECOMMENDATIONS.
2. INSTALL 3" OF FLOAT-RESISTING MULCH ON EXPOSED SOIL AREAS BETWEEN PLANTING PER ALAMEDA COUNTY C.3 STORMWATER TECHNICAL GUIDANCE DATED JANUARY 1, 2015.

TYPICAL BIORETENTION AREA DETAIL

DOLLAR PLACE

CITY OF HAYWARD ALAMEDA COUNTY CALIFORNIA

DATE: SEPTEMBER 2016

SCALE: NOT TO SCALE

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G:\2530-000\ACAD\SURVEY\SWCP\FIG 7 - TYPICAL BIORETENTION AREA DETAIL.DWG

Appendix

CITY OF HAYWARD
777 B STREET – HAYWARD CA 95451
PHONE – (510) 583-4000

Stormwater Requirements Checklist

Municipal Regional Stormwater Permit (MRP)
Stormwater Controls for Development Projects

I. Applicability of C.3 and C.6 Stormwater Requirements

I.A. Enter Project Data *(For "C.3 Regulated Projects," data will be reported in the municipality's stormwater Annual Report.)*

I.A.1 Project Name: Mission Crossings

I.A.2 Project Address (include cross street): 25501 & 25551 Mission Blvd and 671 Berry Avenue

I.A.3 Project APN: 444-060-19-04 I.A.4 Project Watershed: WARD CREEK

I.A.5 Applicant Name: Justin Derby

I.A.6 Applicant Address: 12657 Alcosta Boulevard, Suite 175, San Ramon CA

I.A.7 Applicant Phone: (925) 543-4018 Applicant Email Address: Justin.derby@mlcholdings.net

I.A.8 Development type: (check all that apply)

☒ Residential ☐ Commercial ☐ Industrial ☐ Mixed-Use ☐ Streets, Roads, etc.

☐ 'Redevelopment' as defined by MRP: creating, adding and/or replacing exterior existing impervious surface on a site where past development has occurred[1]

☐ 'Special land use categories' as defined by MRP: (1) auto service facilities[2], (2) retail gasoline outlets, (3) restaurants[2], (4) uncovered parking area (stand-alone or part of a larger project)

I.A.9 Project Description[3]: Residential development of 27 multifamily buildings for 144 units and a proposed 93 unit hotel

(Also note any past or future phases of the project.)

I.A.10 Total Area of Site: 9.68 acres

Total Area of land disturbed during construction (include clearing, grading, excavating and stockpile area: 9.68 acres.

I.B. Is the project a "C.3 Regulated Project" per MRP Provision C.3.b?

I.B.1 Enter the amount of impervious surface[4] created and/or replaced by the project (if the total amount is 5,000 sq.ft. or more):

Table of Impervious and Pervious Surfaces

Type of Impervious Surface	a Pre-Project Impervious Surface (sq.ft.)	b Existing Impervious Surface to be Replaced[6] (sq.ft.)	c New Impervious Surface to be Created[6] (sq.ft.)	d Post-project landscaping (sq.ft.), if applicable
Roof area(s) – excluding any portion of the roof that is vegetated ("green roof")	61,660		148,100	
Impervious[4] sidewalks, patios, paths, driveways	313,200		50,500	
Impervious[4] uncovered parking[5]				N/A
Streets (public)				
Streets (private)			122,400	
Totals:	371,060		**321,000**	**100,620**
Area of Existing Impervious Surface to remain in place		N/A		
Total New Impervious Surface *(sum of totals for columns b and c):*				

[1] Roadway projects that replace existing impervious surface are subject to C.3 requirements only if one or more lanes of travel are added.
[2] Standard Industrial Classification (SIC) codes are in Section 2.3 of the C.3 Technical Guidance (download at www.cleanwaterprogram.org)
[3] Project description examples: 5-story office building, industrial warehouse, residential with five 4-story buildings for 200 condominiums, etc.
[4] Per the MRP, pavement that meets the following definition of pervious pavement is NOT an impervious surface. Pervious pavement is defined as pavement that stores and infiltrates rainfall at a rate equal to immediately surrounding unpaved, landscaped areas, or that stores and infiltrates the rainfall runoff volume described in Provision C.3.d.
[5] Uncovered parking includes top level of a parking structure.
[6] "Replace" means to install new impervious surface where existing impervious surface is removed. "Create" means to install new impervious surface where there is currently no impervious surface.

I.B. Is the project a "C.3 Regulated Project" per MRP Provision C.3.b? (continued)

		Yes	No	NA
I.B.2	In Item I.B.1, does the Total New Impervious Surface equal 10,000 sq.ft. or more? *If YES, skip to Item I.B.5 and check "Yes." If NO, continue to Item I.B.3.*	☒	☐	☐
I.B.3	Does the Item I.B.1 Total New Impervious Surface equal 5,000 sq.ft. or more, but less than 10,000 sq.ft? *If YES, continue to Item I.B.4. If NO, skip to Item I.B.5 and check "No."*	☐	☒	☐
I.B.4	Is the project a "Special Land Use Category" per Item I.A.8? For uncovered parking, check YES only if there is 5,000 sq.ft or more uncovered parking. *If NO, go to Item I.B.5 and check "No." If YES, go to Item I.B.5 and check "Yes."*	☐	☒	☐
I.B.5	Is the project a C.3 Regulated Project? *If YES, skip to Item I.B.6; if NO, continue to Item I.C.*	☒	☐	☐
I.B.6	Does the total amount of Replaced impervious surface equal 50 percent or more of the Pre-Project Impervious Surface? *If YES, stormwater treatment requirements apply to the whole site; if NO, these requirements apply only to the impervious surface created and/or replaced.*	☒	☐	☐

I.C. Projects that are NOT C.3 Regulated Projects

If you answered NO to Item I.B.5, or the project creates/replaces less than 5,000 sq. ft. of impervious surface, then the project is NOT a C.3 Regulated Project, and stormwater treatment is not required, BUT the municipality may determine that source controls and site design measures are required. Skip to Section II.

I.D. Projects that ARE C.3 Regulated Projects

If you answered YES to Item I.B.5, then the project is a C.3 Regulated Project. The project must include appropriate site design measures and source controls AND hydraulically-sized stormwater treatment measures. Hydromodification management may also be required; refer to Section II to make this determination. If final discretionary approval was granted on or after **DECEMBER 1, 2011**, Low Impact Development (LID) requirements apply, except for "Special Projects." See Section II.

I.E. Identify C.6 Construction-Phase Stormwater Requirements

		Yes	No
I.E.1	Does the project disturb 1.0 acre (43,560 sq.ft.) or more of land? (See Item I.A.10). *If Yes, obtain coverage under the state's Construction General Permit at https://smarts.waterboards.ca.gov/smarts/faces/SwSmartsLogin.jsp. Submit to the municipality a copy of your Notice of Intent and Storm Water Pollution Prevention Plan (SWPPP) before a grading or building permit is issued.*	☒	☐
I.E.2	Is the site as a "High Priority Site" that disturbs less than 1.0 acre (43,560 sq.ft.) of land? (Municipal staff will make this determination.) ▪ "High Priority Sites" are sites that require a grading permit, are adjacent to a creek, or are otherwise high priority for stormwater protection during construction (see MRP Provision C.6.e.ii(2))	☐	☒

- NOTE TO APPLICANT: All projects require appropriate stormwater best management practices (BMPs) during construction. Refer to the Section II to identify appropriate construction BMPs.
- NOTE TO MUNICIPAL STAFF: If the answer is "Yes" to either question in Section E, refer this project to construction site inspection staff to be added to their list of projects that require stormwater inspections at least monthly during the wet season (October 1 through April 30).

II. Implementation of Stormwater Requirements

II.A. Complete the appropriate sections for the project. For non-C.3 Regulated Projects, Sections II.B, II.C, and II.D apply. For C.3 Regulated Projects, all sections of Section II apply.

II.B. Select Appropriate Site Design Measures

- *Required for C.3 Regulated Projects.*
- *Starting December 1, 2012, projects that create and/or replace 2,500 - 10,000 sq.ft. of impervious surface, and stand-alone single family homes that create/replace 2,500 sq.ft. or more of impervious surface, must include one of Site Design Measures a through f.*[7]
- *All other projects are encouraged to implement site design measures, which may be required at municipality discretion.*
- *Consult with municipal staff about requirements for your project.*

II.B.1 Is the site design measure included in the project plans?

Yes	No	Plan Sheet No.	
☐	☒		a. Direct roof runoff into cisterns or rain barrels and use rainwater for irrigation or other non-potable use.
☒	☐		b. Direct roof runoff onto vegetated areas.
☒	☐		c. Direct runoff from sidewalks, walkways, and/or patios onto vegetated areas.
☒	☐		d. Direct runoff from driveways and/or uncovered parking lots onto vegetated areas.
☐	☒		e. Construct sidewalks, walkways, and/or patios with permeable surfaces.
☐	☒		f. Construct bike lanes, driveways, and/or uncovered parking lots with permeable surfaces.
☒	☐		g. Minimize land disturbance and impervious surface (especially parking lots).
☒	☐		h. Maximize permeability by clustering development and preserving open space.
☐	☒		i. Use micro-detention, including distributed landscape-based detention.
☒	☐		j. Protect sensitive areas, including wetland and riparian areas, and minimize changes to the natural topography.
☐	☒		k. Self-treating area (see Section 4.1 of the C.3 Technical Guidance)
☒	☐		l. Self-retaining area (see Section 4.2 of the C.3 Technical Guidance)
☐	☒		m. Plant or preserve interceptor trees (Section 4.5, C.3 Technical Guidance)

[7] See MRP Provision C.3.a.i(6) for non-C.3 Regulated Projects, C.3.c.i(2)(a) for Regulated Projects, C.3.i for projects that create/replace 2,500 to 10,000 sq.ft. of impervious surface and stand-alone single family homes that create/replace 2,500 sq.ft. or more of impervious surface.

II.C. Select appropriate source controls *(Applies to C.3 Regulated Projects; encouraged for other projects. Consult municipal staff.[8])*

Are these features in project?		Features that require source control measures	Source control measures (Refer to Local Source Control List for detailed requirements)	Is source control measure included in project plans?		
Yes	No			Yes	No	Plan Sheet No.
☒	☐	Storm Drain	Mark on-site inlets with the words "No Dumping! Flows to Bay" or equivalent.	☐	☐	
☐	☒	Floor Drains	Plumb interior floor drains to sanitary sewer[9] [or prohibit].	☐	☐	
☒	☐	Parking garage	Plumb interior parking garage floor drains to sanitary sewer.[9]	☐	☐	
☒	☐	Landscaping	▪ Retain existing vegetation as practicable. ▪ Select diverse species appropriate to the site. Include plants that are pest- and/or disease-resistant, drought-tolerant, and/or attract beneficial insects. ▪ Minimize use of pesticides and quick-release fertilizers. ▪ Use efficient irrigation system; design to minimize runoff.	☐	☐	
☒	☐	Pool/Spa/Fountain	Provide connection to the sanitary sewer to facilitate draining.[9]	☐	☐	
☒	☐	Food Service Equipment (non-residential)	Provide sink or other area for equipment cleaning, which is: ▪ Connected to a grease interceptor prior to sanitary sewer discharge.[9] ▪ Large enough for the largest mat or piece of equipment to be cleaned. ▪ Indoors or in an outdoor roofed area designed to prevent stormwater run-on and run-off, and signed to require equipment washing in this area.	☐	☐	
☒	☐	Refuse Areas	▪ Provide a roofed and enclosed area for dumpsters, recycling containers, etc., designed to prevent stormwater run-on and runoff. ▪ Connect any drains in or beneath dumpsters, compactors, and tallow bin areas serving food service facilities to the sanitary sewer.[9]	☐	☐	
☐	☒	Outdoor Process Activities[10]	Perform process activities either indoors or in roofed outdoor area, designed to prevent stormwater run-on and runoff, and to drain to the sanitary sewer.[9]	☐	☐	
☐	☒	Outdoor Equipment/ Materials Storage	▪ Cover the area or design to avoid pollutant contact with stormwater runoff. ▪ Locate area only on paved and contained areas. ▪ Roof storage areas that will contain non-hazardous liquids, drain to sanitary sewer[9], and contain by berms or similar.	☐	☐	
☐	☒	Vehicle/ Equipment Cleaning	▪ Roofed, pave and berm wash area to prevent stormwater run-on and runoff, plumb to the sanitary sewer[9], and sign as a designated wash area. ▪ Commercial car wash facilities shall discharge to the sanitary sewer.[9]	☐	☐	
☐	☒	Vehicle/ Equipment Repair and Maintenance	▪ Designate repair/maintenance area indoors, or an outdoors area designed to prevent stormwater run-on and runoff and provide secondary containment. Do not install drains in the secondary containment areas. ▪ No floor drains unless pretreated prior to discharge to the sanitary sewer.[9] ▪ Connect containers or sinks used for parts cleaning to the sanitary sewer.[9]	☐	☐	
☐	☒	Fuel Dispensing Areas	▪ Fueling areas shall have impermeable surface that is a) minimally graded to prevent ponding and b) separated from the rest of the site by a grade break. ▪ Canopy shall extend at least 10 ft in each direction from each pump and drain away from fueling area.	☐	☐	
☐	☒	Loading Docks	▪ Cover and/or grade to minimize run-on to and runoff from the loading area. ▪ Position downspouts to direct stormwater away from the loading area. ▪ Drain water from loading dock areas to the sanitary sewer.[9] ▪ Install door skirts between the trailers and the building.	☐	☐	
☒	☐	Fire Sprinklers	Design for discharge of fire sprinkler test water to landscape or sanitary sewer.[9]	☐	☐	
☒	☐	Miscellaneous Drain or Wash Water	▪ Drain condensate of air conditioning units to landscaping. Large air conditioning units may connect to the sanitary sewer.[9] ▪ Roof drains shall drain to unpaved area where practicable. ▪ Drain boiler drain lines, roof top equipment, all washwater to sanitary sewer[9].	☐	☐	
☐	☒	Architectural Copper	▪ Discharge rinse water to sanitary sewer[9], or collect and dispose properly offsite. See flyer "Requirements for Architectural Copper."	☐	☐	

[8] See MRP Provision C.3.a.i(7) for non-C.3 Regulated Projects and Provision C.3.c.i(1) for C.3 Regulated Projects.

[9] Any connection to the sanitary sewer system is subject to sanitary district approval.

[10] Businesses that may have outdoor process activities/equipment include machine shops, auto repair, industries with pretreatment facilities.

II.D. Implement construction Best Management Practices (BMPs) *(Applies to all projects).*

Yes	No	Best Management Practice (BMP)
☒	☐	Attach the municipality's construction BMP plan sheet to project plans and require contractor to implement the applicable BMPs on the plan sheet.
☒	☐	Temporary erosion controls to stabilize all denuded areas until permanent erosion controls are established.
☒	☐	Delineate with field markers clearing limits, easements, setbacks, sensitive or critical areas, buffer zones, trees, and drainage courses.
☒	☐	Provide notes, specifications, or attachments describing the following: ▪ Construction, operation and maintenance of erosion and sediment controls, include inspection frequency; ▪ Methods and schedule for grading, excavation, filling, clearing of vegetation, and storage and disposal of excavated or cleared material; ▪ Specifications for vegetative cover & mulch, include methods and schedules for planting and fertilization; ▪ Provisions for temporary and/or permanent irrigation.
☒	☐	Perform clearing and earth moving activities only during dry weather.
☒	☐	Use sediment controls or filtration to remove sediment when dewatering and obtain all necessary permits.
☒	☐	Protect all storm drain inlets in vicinity of site using sediment controls such as berms, fiber rolls, or filters.
☒	☐	Trap sediment on-site, using BMPs such as sediment basins or traps, earthen dikes or berms, silt fences, check dams, soil blankets or mats, covers for soil stock piles, etc.
☒	☐	Divert on-site runoff around exposed areas; divert off-site runoff around the site (e.g., swales and dikes).
☒	☐	Protect adjacent properties and undisturbed areas from construction impacts using vegetative buffer strips, sediment barriers or filters, dikes, mulching, or other measures as appropriate.
☒	☐	Limit construction access routes and stabilize designated access points.
☒	☐	No cleaning, fueling, or maintaining vehicles on-site, except in a designated area where washwater is contained and treated.
☒	☐	Store, handle, and dispose of construction materials/wastes properly to prevent contact with stormwater.
☒	☐	Contractor shall train and provide instruction to all employees/subcontractors re: construction BMPs.
☒	☐	Control and prevent the discharge of all potential pollutants, including pavement cutting wastes, paints, concrete, petroleum products, chemicals, washwater or sediments, rinse water from architectural copper, and non-stormwater discharges to storm drains and watercourses.

PROJECTS THAT ARE NOT C.3 REGULATED PROJECTS STOP HERE!

II.E. Feasibility/Infeasibility of Infiltration and Rainwater Harvesting/Use (Applies to C.3 Regulated Projects ONLY)

Except for some Special Projects, C.3 Regulated Projects must include low impact development (LID) treatment measures. LID treatment measures are rainwater harvesting, infiltration, evapotranspiration, and biotreatment (landscape-based treatment with special soils). Biotreatment is allowed ONLY if it is infeasible to treat the amount of runoff specified in Provision C.3.d with rainwater harvesting, infiltration, and evapotranspiration.

	Yes	No	N/A
II.E.1 Is this project a "Special Project"? (See Appendix K of the C.3 Technical Guidance for criteria.) ➢ *If No, continue to Item II.E.2.* ➢ *If Yes, or if there is potential that the project MAY be a Special Project, complete the Special Projects Worksheet.*	☐	☒	☐
II.E.2 Infiltration Potential. Based on site-specific soil report[11], do site soils either: a. Have a saturated hydraulic conductivity (Ksat) less than 1.6 inches/hour), or, if the Ksat rate is not available, b. Consist of Type C or D soils? ➢ *If Yes, infiltration of the C.3.d amount of runoff is infeasible. Continue to II.E.3.* ➢ *If No, complete the Infiltration Feasibility Worksheet. If infiltration of the C.3.d amount of runoff is found to be feasible, skip to II.E.8; if infiltration is found to be infeasible, continue to II.E.3.*	☒	☐	☐

[11] If no site-specific soil report is available, refer to soil hydraulic conductivity maps in C.3 Technical Guidance Appendix I.

II.E.3 Recycled Water. Check the box if the project is installing and using a recycled water plumbing system for non-potable water use.

☐ The project is installing a recycled water plumbing system, and the installation of a second non-potable water system for harvested rainwater is impractical, and considered infeasible due to cost considerations.

- *If you checked this box, there is no need for further evaluation of rainwater harvesting. Skip to II.E.9.*

II.E.4 Potential Rainwater Capture Area

a. Refer to the Table of Impervious and Pervious Surfaces in Section I, and enter the total square footage of impervious surface that will be replaced and/or created by the project. 321,000 Sq. ft.

b. If I.B.6 indicates that 50% or more of the existing impervious surface will be replaced with new impervious surface, then add any existing impervious surface that will remain in place to the amount in II.E.4.a. 321,000 Sq. ft.

c. Convert the amount in Item II.E.4.b from square feet to acres (divide by 43,560). If II.E.4.b is not applicable, convert the amount in II.E.4.a from square feet to acres. This is the project's Potential Rainwater Capture Area, in acres. 7.37 Acres

II.E.5 Landscape Irrigation: Feasibility of Rainwater Harvesting and Use

a. Enter area of onsite landscaping. 2.31 Acres

b. Multiply the Potential Rainwater Capture Area (the amount in II.E.4.c) times 2.5. 18.4 Acres

c. Is the amount in II.E.5.a (onsite landscaping) LESS than 2.5 times the size of the amount in II.E.5.b (the product of 2.5 times the size of the Potential Rainwater Capture Area)[12]? ☒ **Yes** ☐ **No**

- *If Yes, irrigation use of the C.3.d amount of runoff is infeasible. Continue to II.E.6.*
- *If No, it may be possible to meet the treatment requirements by directing runoff from impervious areas to self-retaining areas (see Section 4.2 of the C.3 Technical Guidance). If not, refer to Table 11 and the curves in Appendix F of the LID Feasibility Report to evaluate feasibility of harvesting and using the C.3.d amount of runoff for irrigation. If that analysis shows that it is feasible to harvest and use the C.3.d amount of runoff, complete Part 5 (Factors Other than Demand) of the Rainwater Harvesting/Use Feasibility Worksheet. Skip to II.E.7.*

II.E.6 Indoor Non-Potable Uses: Feasibility of Rainwater Harvesting and Use *(check the box for the applicable project type, then fill in the requested information and answer the question):*[13]

☐ a. Residential Project

i. Number of dwelling units (total post-project): 144 Units

ii. Divide amount in (i) by the amount in II.E.4.c (Potential Rainwater Capture Area): 19.5 Du/ac

iii. Is the amount in (ii) LESS than 100 dwelling units per acre of capture area? ☒ **Yes** ☐ **No**

☐ b. Commercial Project

i. Floor area (total interior post-project square footage): _____ Sq.ft.

ii. Divide amount in (i) by the amount in II.E.4.c (Potential Rainwater Capture Area): _____ Sq.ft./ac

iii. Is the amount in (ii) LESS than 70,000 square feet per acre of capture area? ☐ **Yes** ☐ **No**

☐ c. School Project

i. Floor area (total interior post-project square footage): _____ Sq.ft.

ii. Divide amount in (i) by the amount in II.E.4.c (Potential Rainwater Capture Area): _____ Sq.ft./ac

iii. Is the amount in (ii) LESS than 21,000 square feet per acre of capture area? ☐ **Yes** ☐ **No**

[12] Landscape areas must be contiguous and within the same Drainage Management Area to irrigate with harvested rainwater via gravity flow.
[13] Rainwater harvested for indoor use is typically used for toilet/urinal flushing, industrial processes, or other non-potable uses.

II.E.6 Indoor Non-Potable Uses: Feasibility of Rainwater Harvesting and Use (continued)

☐ d. Industrial Project

i. Estimated demand for non-potable water (gallons/day): _____ Gal.

ii. Is the amount in (i) LESS than 2,400? ☐ **Yes** ☐ **No**

If you checked "No", refer to the curves in Appendix F of the LID Feasibility Report to evaluate feasibility of harvesting and using the C.3.d amount of runoff for industrial use.

☐ e. Mixed-Use Residential/Commercial Project[14]

	Residential	*Commercial*
i. Number of residential dwelling units and square footage of commercial floor area:	_____ Units	_____ Sq.ft.
ii. Percentage of total interior post-project floor area serving each activity:	_____ %	_____ %
iii. Prorated Potential Rainwater Capture Area per activity (multiply amount in II.E.4.c by the percentages in [ii]):	_____ Acres	_____ Acres
iv. Prorated project demand per acre of Potential Rainwater Capture Area (divide the amounts in [i] by the amounts in [iii]):	_____ Du/ac	_____ Sq.ft/ac

v. Is the amount in (iv) in the residential column less than 100 dwelling units per acre of capture area, AND is the amount in the commercial column less than 70,000 square feet per acre of capture area? ☐ **Yes** ☐ **No**

- *If you checked "Yes" for the above question for the applicable project type, rainwater harvesting for indoor use is considered infeasible, unless the project includes one or more buildings that each have an individual roof area of 10,000 sq. ft. or more, in which case further analysis is needed. Complete Sections II.E.5 and II.E.6 of this form for each such building, then continue to II.E.7.*
- *If you checked "No" for the question applicable to the type of project, rainwater harvesting for indoor use may be feasible. Complete the Rainwater Harvesting Feasibility Worksheet, and then continue to II.E.7.*

II.E.7 Identify and Attach Additional Feasibility Analyses

If further analysis is conducted based on results in II.E.1, II.E.2, II.E.5, or II.E.6, indicate the analysis that is conducted and attach the applicable form or other documentation (check all that apply):

☐ Special Projects Worksheet (if required in II.E.1)

☐ Infiltration Feasibility Worksheet (if required in II.E.2)

☐ Rainwater Harvesting and Use Feasibility Worksheet (if required in II.E.5 or II.E.6), completed for:

- ☐ The entire project
- ☐ Individual building(s), if applicable, describe: _____

☐ Evaluation of the feasibility of harvesting and using the C.3.d amount of runoff for irrigation, based on Table 11 and the curves in Appendix F of the LID Feasibility Report (if required in II.E.5).

☐ Evaluation of the feasibility of harvesting and using the C.3.d amount of runoff for non-potable industrial use, based on the curves in Appendix F of the LID Feasibility Report (if required in II.E.6.d).

II.E.8 Finding of Infiltration Feasibility/Infeasibility

Infiltration of the C.3.d amount of runoff is infeasible if any of the following conditions apply (check all that apply):

☒ The "Yes" box was checked for Item II.E.2.

☐ Completion of the Infiltration Feasibility Worksheet resulted in a finding that infiltration of the C.3.d amount of runoff is infeasible.

- *Based on the above evaluation, infiltration of the C.3.d amount of runoff is (check one):*

☒ Infeasible ☐ Feasible

[14] For a mixed-use project involving activities other than residential and commercial activities, follow the steps for residential/commercial mixed-use projects. Prorate the Potential Rainwater Capture Area for each activity based on the percentage of the project serving each activity.

II.E.9 Finding of Rainwater Harvesting and Use Feasibility/Infeasibility

Harvesting and use of the C.3.d amount of runoff is infeasible if any of the following apply (check all that apply):

☐ The project will have a recycled water system for non-potable use (II.E.3).

☒ Only the "Yes" boxes were checked for Items II.E.5 and II.E.6.

☐ Completion of the Rainwater Harvesting and Use Feasibility Worksheet resulted in a finding that harvesting and use of the C.3.d amount of runoff is infeasible.

☐ Evaluation of the feasibility of harvesting and using the C.3.d amount of runoff for irrigation, based on Table 11 and the curves in Appendix F of the LID Feasibility Report, resulted in a finding of infeasibility.

☐ Evaluation of the feasibility of harvesting and using the C.3.d amount of runoff for non-potable industrial use, based on the curves in Appendix F of the LID Feasibility Report, resulted in a finding of infeasibility.

- *Based on the above evaluation, harvesting and using the C.3.d amount of runoff is (check one):*

  ☒ Infeasible ☐ Feasible

II.E.10. Use of Biotreatment

If findings of infeasibility are made in both II.E.8 (Infiltration) and II.E.9 (Rainwater Harvesting and Use), then the applicant may use appropriately designed bioretention facilities for compliance with C.3 treatment requirements.

- *Applicants using biotreatment are encouraged to maximize infiltration of stormwater if site conditions allow.*

Continue to Section II.F on the next page.

II.F. Stormwater Treatment Measures (Applies to C.3 Regulated Projects)

II.F.1 Check the applicable box and indicate the treatment measures to be included in the project.

Yes	No	
☐	☒	Is the project a **Special Project**? If yes, consult with municipal staff about the need to prepare a discussion of the feasibility and infeasibility of 100% LID treatment. Indicate the type of non-LID treatment to be used, the hydraulic sizing method*, and percentage of the amount of runoff specified in Provision C.3.d that is treated: Non-LID Treatment — Hydraulic sizing method — % of C.3.d amount of runoff treated ☐ Media filter ☐ Tree well filter
☒	☐	Is it **infeasible** to treat the C.3.d amount of runoff using either infiltration or rainwater harvesting/use (see II.E.8 and II.E.9)? If yes, indicate the biotreatment measures to be used, and the hydraulic sizing method: Biotreatment Measures — Hydraulic sizing method ☒ Bioretention area — 2(c) ☐ Flow-through planter ☐ Other (specify):
☐	☒	Is it **feasible** to treat the C.3.d amount of runoff using either infiltration or rainwater harvesting/use (see II.E.8 and II.E.9)? If yes, indicate the non-biotreatment LID measures to be used, and hydraulic sizing method: LID Treatment Measure (non-biotreatment) — Hydraulic sizing method ☐ Rainwater harvesting and use ☐ Bioinfiltration[15] ☐ Infiltration trench ☐ Other (specify):_____

*** Hydraulic Sizing Method:** Indicate which of the following Provision C.3.d.i hydraulic sizing methods were used:

1. Volume based approaches – Refer to Provision C.3.d.i.(1):
   1(a) Urban Runoff Quality Management approach, or
   1(b) 80% capture approach (recommended volume-based approach).

2. Flow-based approaches – Refer to Provision C.3.d.i.(2):
   2(a) 10% of 50-year peak flow approach,
   2(b) Percentile rainfall intensity approach, or
   2(c) 0.2-Inch-per-hour intensity approach (this is recommended flow-based approach AND the basis for the 4% rule of thumb described in Section 5.1 of the C.3 Technical Guidance).

3. Combination hydraulic sizing approach -- Refer to Provision C.3.d.i.(3):
   If a combination flow and volume design basis was used, indicate which flow-based and volume-based criteria were used.

II.G. Is the project a Hydromodification Management[16] (HM) Project? (Complete this section for C.3 Regulated Projects)

II.G.1 Does the project create and/or replace 1 acre (43,560 sq. ft.) or more of impervious surface? (Refer to Item I.B.1.)

☒ Yes. *Continue to Item II.G.2.*

☐ No. *The project is NOT required to incorporate HM measures. Skip to Item II.G.6 and check "No."*

II.G.2 Is the total impervious area increased over the pre-project condition? (Refer to Item I.B.1.)

☐ Yes. *Continue to Item II.G.3.*

☒ No. *The project is NOT required to incorporate HM measures. Skip to Item II.G.6 and check "No."*

[15] See Section 6.1 of the C.3 Technical Guidance for conditions in which bioretention areas provide bioinfiltration.

[16] Hydromodification is the modification of a stream's hydrograph, caused in general by increases in flows and durations that result when land is developed (made more impervious). The effects of hydromodification include, but are not limited to, increased bed and bank erosion, loss of habitat, increased sediment transport and deposition, and increased flooding. Hydromodification management control measures are designed to reduce these effects.

II.G.3 Is the site located in a tidally influenced/depositional area, or in the extreme eastern portion of the county that is not subject to HM requirements? *(See HMP Susceptibility Map in Appendix I of the C.3 Technical Guidance.)*

☐ Yes. *Project is exempt from HM requirements. Attach map indicating project location. Skip to II.G.6 and check "No".*

☐ No. *Continue to II.G.4.*

II.G.4 Is the site located in a high slope zone or special consideration watershed, as shown on the HMP Susceptibility Map?

☐ Yes. *Project is subject to HM requirements. Attach map indicating project location. Skip to II.G.6 and check "Yes."*

☐ No. *Continue to II.G.5.*

II.G.5 For sites located in a white area on the HMP Susceptibility Map, has an engineer or qualified environmental professional determined that runoff from the project flows only through a hardened channel or enclosed pipe along its entire length before emptying into a waterway in the exempt area?

☐ Yes. *Project is exempt from HM requirements. Attach signed statement by qualified professional. Go to II.G.6 and check "No."*

☐ No. *Project is subject to HM requirements. Attach map indicating project location. Go to Item G.6 and check "Yes."*

II.G.6 Is the project a Hydromodification Management Project?

☐ Yes. *The project is subject to HM requirements in Provision C.3.g of the Municipal Regional Stormwater Permit.*

☒ No. *The project is EXEMPT from HM requirements.*

☐ HM requirements are impracticable. *(Attach documentation needed to comply with the impracticability provision in MRP Attachment B.)*

- *If the project is subject to the HM requirements, incorporate in the project flow duration stormwater control measures designed such that post-project stormwater discharge rates and durations match pre-project discharge rates and durations. The Bay Area Hydrology Model (BAHM) has been developed to size flow duration controls. See www.bayareahydrologymodel.org. Guidance is provided in Chapter 7 of the C.3 Technical Guidance.*

II.H Stormwater Treatment Measure and/HM Control Owner or Operator's Information:

Name: Justin Derby

Address: 12657 Alcosta Boulevard, Suite 175 San Ramon CA

Phone: (925) 543-4018 Email: Justin.derby@mlcholdings.net

- *Applicant must call for inspection and receive inspection within 45 days of installation of treatment measures and/or hydromodification management controls.*

Name of applicant completing the form: Lee Rosenblatt

Signature: _____ Date: _____

III. For Completion By Municipal Staff

III.1 Alternative Certification: Was the treatment system sizing and design reviewed by a qualified third-party professional that is not a member of the project team or agency staff?

☐ Yes ☐ No Name of Reviewer _____

III.2. Confirm Operations and Maintenance (O&M) Submittal:

The following questions apply to C.3 Regulated Projects and Hydromodification Management Projects.

		Yes	No	N/A
III.2.a	Was maintenance plan submitted?	☐	☐	☐
III.2.b	Was maintenance plan approved?	☐	☐	☐
III.2.c	Was maintenance agreement submitted? (Date executed: _____)	☐	☐	☐

- *Attach the executed maintenance agreement as an appendix to this checklist.*

III.3 Incorporate HM Controls (if required)

Are the applicable items for HM compliance included in the plan submittal?

Yes	No	NA	Documentation for HM Compliance
☐	☐	☐	Site plans with pre- and post-project impervious surface areas, surface flow directions of entire site, locations of flow duration controls and site design measures per HM site design requirement
☐	☐	☐	Soils report or other site-specific document showing soil types at all parts of site
☐	☐	☐	If project uses the Bay Area Hydrology Model (BAHM), a list of model inputs.
☐	☐	☐	If project uses custom modeling, a summary of the modeling calculations with corresponding graph showing curve matching (existing, post-project, and post-project with HM controls curves), goodness of fit, and (allowable) low flow rate.
☐	☐	☐	If project uses the Impracticability Provision, a listing of all applicable costs and a brief description of the alternative HM project (name, location, date of start up, entity responsible for maintenance).
☐	☐	☐	If the project uses alternatives to the default BAHM approach or settings, a written description and rationale.

- *Municipal staff: Refer to the "Flow Duration Control Review Worksheet for HM Submittals" to review the documentation submitted for HM compliance.*

III.4 Annual Operations and Maintenance (O&M) Submittals:

For C.3 Regulated Projects and Hydromodification Management Projects, indicate the dates on which the Applicant submitted annual reports for project O&M: _____

_____

III.5 Comments:

_____

_____

_____

_____

III.6 Notes:

Section I Notes: _____

Section II Notes: _____

Section III Notes: _____

III.7 Project Close-Out:

III.7.a	Were final Conditions of Approval met?	☐	☐	
III.7.b	Was initial inspection of the completed treatment/HM measure(s) conducted? (Date of inspection: _____)	☐	☐	☐
III.7.c	Was maintenance plan submitted? (Date executed: _____)	☐	☐	☐
III.7.d	Was project information provided to staff responsible for O&M verification inspections? (Date provided to inspection staff: _____)	☐	☐	☐

Name of staff confirming project is closed out: _____

Signature: _____ Date: _____

Name of O&M staff receiving information: _____

Signature: _____ Date: _____

Appendices

Appendix A: O&M Agreement
Appendix B: O&M Annual Report Form

Infiltration/Harvesting and Use Feasibility Screening Worksheet

Apply these screening criteria for C.3 Regulated Projects required to implement Provision C.3 stormwater treatment requirements. See the Glossary (Attachment 1) for definitions of terms marked with an asterisk (*).Contact municipal staff to determine whether the project meets Special Project* criteria. If the project meets Special Project criteria, it will receive LID treatment reduction credits.*

1. Applicant Info

Site Address: 25501 & 25551 Mission Boulevard Hayward, CA APN:444-060-019-04

Applicant Name: Justin Derby, MLC Holdings, INC. Phone No.: (925)543-4018

Mailing Address: 12657 Alcosta Boulevard Suite 175, San Ramon, CA 94583

2. Feasibility Screening for Infiltration

Do site soils either (a) have a saturated hydraulic conductivity* (Ksat) that will NOT allow infiltration of 80% of the annual runoff (that is, the Ksat is LESS than 1.6 inches/hour), or, if the Ksat rate is not available, (b) consist of Type C or D soils?[1]

☐ Yes (continue) ☐ No – complete the Infiltration Feasibility Worksheet. If infiltration of the C.3.d amount of runoff is found to be feasible, there is no need to complete the rest of this screening worksheet.

3. Recycled Water Use

Check the box if the project is installing and using a recycled water plumbing system for non-potable water use.

☐ The project is installing a recycled water plumbing system, and the installation of a second non-potable water system for harvested rainwater is impractical, and considered infeasible due to cost considerations. Skip to Section 6.

4. Calculate the Potential Rainwater Capture Area* for Screening of Harvesting and Use

Complete this section for the entire project area. If rainwater harvesting and use is infeasible for the entire site, and the project includes one or more buildings that each have an individual roof area of 10,000 sq. ft. or more, then complete Sections 4 and 5 of this form for each of these buildings.

4.1 Table 1 for (check one): ☒ The whole project ☐ Area of 1 building roof (10,000 sq.ft. min.)

Table 1: Calculation of the Potential Rainwater Capture Area*

The Potential Rainwater Capture Area may consist of either the entire project area or one building with a roof area of 10,000 sq. ft. or more.

	1	2	3	4
	Pre-Project Impervious surface[2] (sq.ft.), if applicable	Proposed Impervious Surface[2] (IS), in sq. ft.		Post-project landscaping (sq.ft.), if applicable
		Replaced[3] IS	Created[4] IS	
a. Enter the totals for the area to be evaluated:	371,060	-	**321,000**	**100,620**
b. Sum of replaced and created impervious surface:	N/A	**321,000**		N/A
c. Area of existing impervious surface that will NOT be replaced by the project.	-	N/A		N/A

[1] Base this response on the site-specific soil report, if available. If this is not available, consult soil hydraulic conductivity maps in Attachment 3.

[2], Enter the total of all impervious surfaces, including the building footprint, driveway(s), patio(s), impervious deck(s), unroofed porch(es), uncovered parking lot (including top deck of parking structure), impervious trails, miscellaneous paving or structures, and off-lot impervious surface (new, contiguous impervious surface created from road projects, including sidewalks and/or bike lanes built as part of new street). Impervious surfaces do NOT include vegetated roofs or pervious pavement that stores and infiltrates rainfall at a rate equal to immediately surrounding, unpaved landscaped areas, or that stores and infiltrates the C.3.d amount of runoff*.

[3] "Replaced" means that the project will install impervious surface where existing impervious surface is removed.

[4] "Created" means the project will install new impervious surface where there is currently no impervious surface.

* For definitions, see Glossary (Attachment 1).

4.2 Answer this question ONLY if you are completing this section for the entire project area. If existing impervious surface will be replaced by the project, does the area to be replaced equal 50% or more of the existing area of impervious surface? *(Refer to Table 1, Row "a". Is the area in Column 2 > 50% of Column 1?)*

☐ Yes, C.3. stormwater treatment requirements apply to areas of impervious surface that will remain in place as well as the area created and/or replaced. This is known as the 50% rule.

☐ No, C.3. requirements apply only to the impervious area created and/or replaced.

4.3 Enter the square footage of the Potential Rainwater Capture Area*. If you are evaluating only the roof area of a building, or you answered "no" to Question 4.2, this amount is from Row "b" in Table 1. If you answered "yes" to Question 4.2, this amount is the sum of Rows "b" and "c" in Table 1.:

322,745 square feet.

4.4 Convert the measurement of the Potential Rainwater Capture Area* from square feet to acres (divide the amount in Item 4.3 by 43,560):

7.41 acres.

5. Feasibility Screening for Rainwater Harvesting and Use

5.1 Use of harvested rainwater for landscape irrigation:

Is the onsite landscaping LESS than is 2.5 times the size of the Potential Rainwater Capture Area* (Item 4.3)? (Note that the landscape area(s) would have to be contiguous and within the same Drainage Management Area to use harvested rainwater for irrigation via gravity flow.)

× Yes (continue) ☐ No – direct runoff from impervious areas to self-retaining areas* OR refer to Table 11 and the curves in Appendix F of the LID Feasibility Report to evaluate feasibility of harvesting and using the C.3.d amount of runoff for irrigation.

5.2 Use of harvested rainwater for toilet flushing or non-potable industrial use:

a. Residential Projects: Proposed number of dwelling units: 144
Calculate the dwelling units per impervious acre by dividing the number of dwelling units by the acres of the Potential Rainwater Capture Area* in Item 4.4. Enter the result here:

18.7)

Is the number of dwelling units per impervious acre LESS than 100 (assuming 2.7 occupants/unit)?

× Yes (continue) ☐ No – complete the Harvest/Use Feasibility Worksheet.

b. Commercial/Industrial Projects: Proposed interior floor area: _____ (sq. ft.)

Calculate the proposed interior floor area (sq.ft.) per acre of impervious surface by *dividing the interior floor area (sq.ft.) by the acres of the Potential Rainwater Capture Area* in Item 4.4. Enter the result here:*

_____

Does square footage of the interior floor space per impervious acre equal LESS than 70,000?)

☐ Yes (continue) ☐ No – complete the Harvest/Use Feasibility Worksheet

c. School Projects: Proposed interior floor area: _____ (sq. ft.)

Calculate the proposed interior floor area per acre of impervious surface by *dividing the interior floor area (sq.ft.) by the acres of the Potential Rainwater Capture Area* in Item 4.4 . Enter the result here:*

_____.

Does square footage of the interior floor space per impervious acre equal LESS than 21,000?)

☐ Yes (continue) ☐ No – complete the Harvest/Use Feasibility Worksheet

* For definitions, see Glossary (Attachment 1).

d. Mixed Commercial and Residential Use Projects

- Evaluate the residential toilet flushing demand based on the dwelling units per impervious acre for the residential portion of the project, following the instructions in Item 5.2.a, except you will use a prorated acreage of impervious surface, based on the percentage of the project dedicated to residential use.
- Evaluate the commercial toilet flushing demand per impervious acre for the commercial portion of the project, following the instructions in Item 5.2.a, except you will use a prorated acreage of impervious surface, based on the percentage of the project dedicated to commercial use.

e. Industrial Projects: Estimated non-potable water demand (gal/day): _____

Is the non-potable demand LESS than 2,400 gal/day per acre of the Potential Rainwater Capture Area?

× Yes (continue) ☐ No – refer to the curves in Appendix F of the LID Feasibility Report to evaluate feasibility of harvesting and using the C.3.d amount of runoff for industrial use.

6. Use of Biotreatment

If only the "Yes" boxes were checked for all questions in Sections 2 and 5, or the project will have a recycled water system for non-potable use (Section 3), then the applicant may use appropriately designed bioretention facilities for compliance with C.3 treatment requirements. The applicant is encouraged to maximize infiltration of stormwater if site conditions allow.

7. Results of Screening Analysis

Based on this screening analysis, the following steps will be taken for the project (check all that apply):

× Implement biotreatment measures (such as an appropriately designed bioretention area).

☐ Conduct further analysis of infiltration feasibility by completing the Infiltration Feasibility Worksheet.

☐ Conduct further analysis of rainwater harvesting and use by (check one):

- ☐ Completing the Rainwater Harvesting and Use Feasibility Worksheet for:
  - ☐ The entire project
  - ☐ Individual building(s), if applicable, describe:_____
- ☐ Evaluating the feasibility of harvesting and using the C.3.d amount of runoff for irrigation, based on Table 11 and the curves in Appendix F of the LID Feasibility Report
- ☐ Evaluating the feasibility of harvesting and using the C.3.d amount of runoff for non-potable industrial use, based on the curves in Appendix F of the LID Feasibility Report.

* For definitions, see Glossary (Attachment 1).

APPENDIX G

Environmental Noise Assessment

MISSION CROSSINGS MIXED-USE PROJECT ENVIRONMENTAL NOISE AND VIBRATION ASSESSMENT

Hayward, California

February 23, 2017

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Project: 16-234

INTRODUCTION

The Mission Crossings Mixed-Use Project proposes the construction of a commercial/residential mixed-use development, which includes a Marriott Residence Inn Hotel, on four parcels of land totaling approximately 9.73 acres along the Mission Boulevard corridor in Hayward, California. The residential component would consist of 27 townhome buildings housing 140 dwelling units. The hotel component would include a five-story building with up to 93 rooms. Currently, three commercial buildings, consisting of two vacant Hayward Ford Car Dealership buildings and the Blue Star Motors used car dealership building, and a vacant single-family residence are located on the project site and would be demolished as part of the proposed project.

This report evaluates the project's potential to result in significant noise and vibration impacts with respect to applicable California Environmental Quality Act (CEQA) Guidelines. The report is divided into two sections: 1) the Setting Section provides a brief description of the fundamentals of environmental noise, summarizes applicable regulatory criteria, and discusses the results of the ambient noise and vibration monitoring survey completed to document existing conditions; and, 2) the Impacts and Mitigation Measures Section describes the significance criteria used to evaluate project impacts at on-site and off-site receptors, provides a discussion of each project impact, and presents mitigation measures, where necessary, to provide a compatible project in relation to adjacent land uses.

SETTING

Fundamentals of Environmental Noise

Noise may be defined as unwanted sound. Noise is usually objectionable because it is disturbing or annoying. The objectionable nature of sound could be caused by its *pitch* or its *loudness*. *Pitch* is the height or depth of a tone or sound, depending on the relative rapidity (*frequency*) of the vibrations by which it is produced. Higher pitched signals sound louder to humans than sounds with a lower pitch. *Loudness* is intensity of sound waves combined with the reception characteristics of the ear. Intensity may be compared with the height of an ocean wave in that it is a measure of the amplitude of the sound wave.

In addition to the concepts of pitch and loudness, there are several noise measurement scales which are used to describe noise in a particular location. A *decibel (dB)* is a unit of measurement which indicates the relative amplitude of a sound. The zero on the decibel scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Sound levels in decibels are calculated on a logarithmic basis. An increase of 10 decibels represents a ten-fold increase in acoustic energy, while 20 decibels is 100 times more intense, 30 decibels is 1,000 times more intense, etc. There is a relationship between the subjective noisiness or loudness of a sound and its intensity. Each 10 decibel increase in sound level is perceived as approximately a doubling of loudness over a fairly wide range of intensities. Technical terms are defined in Table 1.

There are several methods of characterizing sound. The most common in California is the *A-weighted sound level (dBA).* This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Representative outdoor and indoor noise levels in units of dBA

are shown in Table 2. Because sound levels can vary markedly over a short period of time, a method for describing either the average character of the sound or the statistical behavior of the variations must be utilized. Most commonly, environmental sounds are described in terms of an average level that has the same acoustical energy as the summation of all the time-varying events. This *energy-equivalent sound/noise descriptor* is called L_{eq}. The most common averaging period is hourly, but L_{eq} can describe any series of noise events of arbitrary duration.

The scientific instrument used to measure noise is the *sound level meter*. Sound level meters can accurately measure environmental noise levels to within about plus or minus 1 dBA. Various computer models are used to predict environmental noise levels from sources, such as roadways and airports. The accuracy of the predicted models depends upon the distance the receptor is from the noise source. Close to the noise source, the models are accurate to within about plus or minus 1 to 2 dBA.

Since the sensitivity to noise increases during the evening and at night -- because excessive noise interferes with the ability to sleep -- 24-hour descriptors have been developed that incorporate artificial noise penalties added to quiet-time noise events. The *Community Noise Equivalent Level* (*CNEL*) is a measure of the cumulative noise exposure in a community, with a 5 dB penalty added to evening (7:00 p.m. - 10:00 p.m.) and a 10 dB addition to nocturnal (10:00 p.m. - 7:00 a.m.) noise levels. The *Day/Night Average Sound Level* (L_{dn}) is essentially the same as CNEL, with the exception that the evening time period is dropped and all occurrences during this three-hour period are grouped into the daytime period.

Fundamentals of Ground-borne Vibration

Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Several different methods are typically used to quantify vibration amplitude. One method is the Peak Particle Velocity (PPV). The PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave. In this report, a PPV descriptor with units of mm/sec or in/sec is used to evaluate construction generated vibration for building damage and human complaints. Table 3 displays the reactions of people and the effects on buildings that continuous vibration levels produce.

The annoyance levels shown in Table 3 should be interpreted with care since vibration may be found to be annoying at much lower levels than those shown, depending on the level of activity or the sensitivity of the individual. To sensitive individuals, vibrations approaching the threshold of perception can be annoying. Low-level vibrations frequently cause irritating secondary vibration, such as a slight rattling of windows, doors, or stacked dishes. The rattling sound can give rise to exaggerated vibration complaints, even though there is very little risk of actual structural damage.

Construction activities can cause vibration that varies in intensity depending on several factors. The use of pile driving and vibratory compaction equipment typically generates the highest construction related ground-borne vibration levels. Because of the impulsive nature of such activities, the use of the PPV descriptor has been routinely used to measure and assess ground-

borne vibration and almost exclusively to assess the potential of vibration to induce structural damage and the degree of annoyance for humans.

The two primary concerns with construction-induced vibration, the potential to damage a structure and the potential to interfere with the enjoyment of life, are evaluated against different vibration limits. Studies have shown that the threshold of perception for average persons is in the range of 0.008 to 0.012 in/sec PPV. Human perception to vibration varies with the individual and is a function of physical setting and the type of vibration. Persons exposed to elevated ambient vibration levels, such as people in an urban environment, may tolerate a higher vibration level.

Structural damage can be classified as cosmetic only, such as minor cracking of building elements, or may threaten the integrity of the building. Safe vibration limits that can be applied to assess the potential for damaging a structure vary by researcher and there is no general consensus as to what amount of vibration may pose a threat for structural damage to the building. Construction-induced vibration that can be detrimental to the building is very rare and has only been observed in instances where the structure is at a high state of disrepair and the construction activity occurs immediately adjacent to the structure.

Railroad and light-rail operations are potential sources of substantial ground vibration depending on distance, the type and the speed of trains, and the type of railroad track. People's response to ground vibration has been correlated best with the velocity of the ground. The velocity of the ground is expressed on the decibel scale. The reference velocity is 1×10^{-6} in./sec. RMS, which equals 0 VdB, and 1 in./sec. equals 120 VdB. Although not a universally accepted notation, the abbreviation "VdB" is used in this document for vibration decibels to reduce the potential for confusion with sound decibels.

Typical background vibration levels in residential areas are usually 50 VdB or lower, well below the threshold of perception for most humans. Perceptible vibration levels inside residences are attributed to the operation of heating and air conditioning systems, door slams and foot traffic. Construction activities, train operations, and street traffic are some of the most common external sources of vibration that can be perceptible inside residences. Table 4 illustrates some common sources of vibration and the association to human perception or the potential for structural damage.

TABLE 1 Definition of Acoustical Terms Used in this Report

Term	Definition
Decibel, dB	A unit describing, the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20 micro Pascals.
Sound Pressure Level	Sound pressure is the sound force per unit area, usually expressed in micro Pascals (or 20 micro Newtons per square meter), where 1 Pascal is the pressure resulting from a force of 1 Newton exerted over an area of 1 square meter. The sound pressure level is expressed in decibels as 20 times the logarithm to the base 10 of the ratio between the pressures exerted by the sound to a reference sound pressure (e. g., 20 micro Pascals). Sound pressure level is the quantity that is directly measured by a sound level meter.
Frequency, Hz	The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is between 20 Hz and 20,000 Hz. Infrasonic sound are below 20 Hz and Ultrasonic sounds are above 20,000 Hz.
A-Weighted Sound Level, dBA	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.
Equivalent Noise Level, L_{eq}	The average A-weighted noise level during the measurement period.
L_{max}, L_{min}	The maximum and minimum A-weighted noise level during the measurement period.
L_{01}, L_{10}, L_{50}, L_{90}	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period.
Day/Night Noise Level, L_{dn} or DNL	The average A-weighted noise level during a 24-hour day, obtained after addition of 10 decibels to levels measured in the night between 10:00 p.m. and 7:00 a.m.
Community Noise Equivalent Level, CNEL	The average A-weighted noise level during a 24-hour day, obtained after addition of 5 decibels in the evening from 7:00 p.m.to 10:00 p.m. and after addition of 10 decibels to sound levels measured in the night between 10:00 p.m. and 7:00 a.m.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.

Source: Handbook of Acoustical Measurements and Noise Control, Harris, 1998.

TABLE 2 Typical Noise Levels in the Environment

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	110 dBA	Rock band
Jet fly-over at 1,000 feet		
	100 dBA	
Gas lawn mower at 3 feet		
	90 dBA	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	80 dBA	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawn mower, 100 feet	70 dBA	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	60 dBA	
		Large business office
Quiet urban daytime	50 dBA	Dishwasher in next room
Quiet urban nighttime	40 dBA	Theater, large conference room
Quiet suburban nighttime		
	30 dBA	Library
Quiet rural nighttime		Bedroom at night, concert hall (background)
	20 dBA	
		Broadcast/recording studio
	10 dBA	
	0 dBA	

Source: Technical Noise Supplement (TeNS), California Department of Transportation, September 2013.

TABLE 3 Reactions of People and Damage to Buildings from Continuous or Frequent Intermittent Vibration Levels

Velocity Level, PPV (in/sec)	Human Reaction	Effect on Buildings
0.01	Barely perceptible	No effect
0.04	Distinctly perceptible	Vibration unlikely to cause damage of any type to any structure
0.08	Distinctly perceptible to strongly perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
0.1	Strongly perceptible	Virtually no risk of damage to normal buildings
0.3	Strongly perceptible to severe	Threshold at which there is a risk of damage to older residential dwellings such as plastered walls or ceilings
0.5	Severe - Vibrations considered unpleasant	Threshold at which there is a risk of damage to newer residential structures

Source: Transportation and Construction Vibration Guidance Manual, California Department of Transportation, September 2013.

TABLE 4 Typical Levels of Ground-borne Vibration

Human/Structural Response	Velocity Level, VdB	Typical Events (50-foot setback)
Threshold, minor cosmetic damage	100	Blasting, pile driving, vibratory compaction equipment
		Heavy tracked vehicles (Bulldozers, cranes, drill rigs)
Difficulty with tasks such as reading a video or computer screen	90	
		Commuter rail, upper range
Residential annoyance, infrequent events	80	Rapid transit, upper range
Residential annoyance, occasional events		Commuter rail, typical Bus or truck over bump or on rough roads
Residential annoyance, frequent events	70	Rapid transit, typical
Approximate human threshold of perception to vibration		Buses, trucks and heavy street traffic
	60	
		Background vibration in residential settings in the absence of activity
Lower limit for equipment ultra-sensitive to vibration	50	

Source: Transit Noise and Vibration Impact Assessment, US Department of Transportation Federal Transit Administration, May 2006.

Regulatory Background

The federal government, State of California and the City of Hayward have established regulatory criteria that are applicable in this assessment. A summary of the relevant regulatory framework is provided below.

U.S. Department of Transportation, Federal Transit Administration's (FTA). The FTA has identified vibration impact criteria for sensitive buildings, residences, and institutional land uses near rail transit and railroads. The thresholds for residences and buildings where people normally sleep (e.g., nearby residences) are 72 VdB for frequent events (more than 70 events of the same source per day), 75 VdB for occasional events (30 to 70 vibration events of the same source per day), and 80 VdB for infrequent events (less than 30 vibration events of the same source per day). Table 5 summarizes the ground-borne vibration impact criteria, as provided in the Transit Noise and Vibration Impact Assessment.[1]

TABLE 5 Ground-borne Vibration Impact Criteria

Land Use Category	Ground-borne Vibration Impact Levels (VdB re 1 µinch/sec, RMS)		
	Frequent Events[1]	**Occasional Events[2]**	**Infrequent Events[3]**
Category 1 Buildings where vibration would interfere with interior operations.	65 VdB[4]	65 VdB[4]	65 VdB[4]
Category 2 Residences and buildings where people normally sleep.	72 VdB	75 VdB	80 VdB
Category 3 Institutional land uses with primarily daytime use.	75 VdB	78 VdB	83 VdB

Notes:

1. "Frequent Events" is defined as more than 70 vibration events of the same source per day. Most rapid transit projects fall into this category.
2. "Occasional Events" is defined as between 30 and 70 vibration events of the same source per day. Most commuter trunk lines have this many operations.
3. "Infrequent Events" is defined as fewer than 30 vibration events of the same kind per day. This category includes most commuter rail branch lines.
4. This criterion limit is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration sensitive manufacturing or research should always require detailed evaluation to define the acceptable vibration levels. Ensuring low vibration levels in a building requires special design of HVAC systems and stiffened floors.

[1]U.S. Department of Transportation, Federal Transit Administration, Transit Noise and Vibration Impact Assessment, May 2006, FTA-VA-90-1003-06.

State CEQA Guidelines. The CEQA contains guidelines to evaluate the significance of effects of environmental noise attributable to a proposed project. Under CEQA, noise impacts would be considered significant if the project would result in:

(a) Exposure of persons to or generation of noise levels in excess of standards established in the local General Plan or Noise Ordinance, or applicable standards of other agencies;

(b) Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels;

(c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;

(d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;

(e) For a project located within an airport land use plan or where such a plan has not been adopted within two miles of a public airport or public use airport, if the project would expose people residing or working in the project area to excessive noise levels; or

(f) For a project within the vicinity of a private airstrip, if the project would expose people residing or working in the project area to excessive noise levels.

CEQA does not define what noise level increase would be considered substantial. Typically, project-generated noise level increases of 3 dBA L_{dn}/CNEL or greater would be considered significant where exterior noise levels would exceed the normally acceptable noise level standard (60 dBA L_{dn}/CNEL for residential land uses). Where noise levels would remain at or below the normally acceptable noise level standard with the project, noise level increases of 5 dBA L_{dn}/CNEL or greater would be considered significant.

City of Hayward 2040 General Plan. The City of Hayward 2040 General Plan Hazards Element establishes policies to control noise within the community. Applicable goals and policies presented in the General Plan are as follows:

GOAL HAZ-8. Minimize human exposure to excessive noise and ground vibration.

Policy HAZ-8.1: Locating Noise Sensitive Uses. The City shall strive to locate noise sensitive uses (e.g., residences, schools, hospitals, libraries, religions institutions, and convalescent homes) away from major noise sources of noise.

Policy HAZ-8.2: Noise Study and Mitigation. The City shall require development projects in areas where they may be exposed to major noise sources (e.g., roadways, rail lines, and airport, or other non-transportation noise sources) to conduct a project level environmental noise analysis. The noise analysis shall determine noise exposure and noise standard compatibility with respect to the noise standards identified in Table HAZ-1 and shall incorporate noise mitigation when located in noise environments that are not compatible with the proposed use of

the project. The study shall use Table HAZ-1 (Exterior Noise Standards for Various Land Uses) and Figure HAZ-1 (Future Noise Contour Map) to determine potential noise exposure impacts, noise compatibility thresholds, and the need for mitigation. The City shall determine mitigation measures based on project-specific noise studies, and may include sound barriers, building setbacks, the use of closed windows and the installation of heating and air conditioning ventilation systems, and the installation of noise attenuating windows and wall/ceiling insulation.

Policy HAZ-8.3: Incremental Noise Impacts of Commercial and Industrial Development. The City shall consider the potential noise impacts of commercial and industrial developments that are located near residences and shall require noise mitigation measures as a condition of project approval.

Policy HAZ-8.5: Residential Noise Standards. The City shall require the design of new residential development to comply with the following noise standards:

- The maximum acceptable interior noise level for all new residential units (single-family, duplex, mobile home, multi-family, and mixed-use units) shall be and L_{dn} of 45 dB with windows closed.

- For project locations that are primarily exposed to aircraft, train, and BART noise, the maximum instantaneous noise level in bedrooms shall not exceed 50 dBA at night (10:00 p.m. to 7:00 a.m.), and the maximum instantaneous noise level in all interior rooms shall not exceed 55 dBA during the day (7:00 a.m. to 10:00 p.m.) with windows closed.

- The maximum acceptable exterior noise level for the primary open space area of a detached single-family home, duplex or mobile home, which is typically the backyard or a fenced side yard, shall be an L_{dn} of 60 dBA. This standard shall be measured at the approximate center of the primary open space area. This standard does not apply to secondary open space areas, such as front yards, balconies, stoops, and porches.

- The maximum acceptable exterior noise level for the primary open space area of townhomes and multi-family apartments or condominiums (private rear yards for townhomes; and common courtyards, roof gardens, or gathering spaces for multi-family projects) shall be and L_{dn} of 65 dB. This standard shall be measured at the approximate center of the primary open space area. This standard does not apply to secondary open space areas, such as front yards, balconies, stoops, and porches.

- The maximum acceptable exterior noise level for the primary open space area of townhomes and multi-family apartments or condominiums (private rear yards for townhomes; and common courtyards, roof gardens, or gathering spaces for multi-family projects) shall be an L_{dn} of 65 dBA. This standard shall be measured at the approximate center of the primary open space area. This standard does not apply to secondary open space areas, such as front yards, balconies, stoops, and porches.

- The maximum acceptable exterior noise level for the primary open space area of urban residential infill and mixed-use projects (private rear yards for townhomes; and common

courtyards, roof gardens, or gathering spaces for multi-family or mixed-use projects) shall be an L_{dn} of 70 dB. Urban residential infill would include all types of residential development within existing or planned urban areas (such as Downtown, The Cannery Neighborhood, and the South Hayward BART Urban Neighborhood) and along major corridors (such as Mission Boulevard). This standard shall be measured at the approximate center of the primary open space area. This standard does not apply to secondary open space areas, such as front yards, balconies, stoops, and porches.

Policy HAZ-8.6: Noise Standards for Lodging, Nursing Homes, and Hospitals. The City shall require the design of new lodging facilities, nursing homes, hospitals, and other similar uses to comply with the following noise standards:

- The maximum acceptable interior noise level for sleeping areas shall be an L_{dn} of 45 dB with windows closed.

- For project locations that are primarily exposed to aircraft, train, and BART noise, the maximum instantaneous noise level in sleeping areas shall not exceed 50 dBA at night (10:00 p.m. to 7:00 a.m.) and 55 dBA during the day (7:00 a.m. to 10:00 p.m.) with windows closed.

Policy HAZ-8.7: Noise Standards for Office and Similar Uses. The City shall require the design of new office developments and similar uses to achieve a maximum interior noise standard of 45dBA Leq (peak hour).

Policy HAZ-8.17: Community Noise Control Ordinance. The City shall maintain, implement, and enforce a community noise control ordinance to regulate noise levels from public and private properties, vehicles, construction sites, and landscaping activities.

Policy HAZ-8.18: Mixed-Use Developments. The City shall require the full disclosure of the potential noise impacts of living in a mixed-use development by requiring residential disclosure notices within deeds and lease agreements as a condition of project approval.

Policy HAZ-8.20: Construction Noise Study. The City may require development projects subject to discretionary approval to assess potential construction noise impacts on nearby sensitive uses and to minimize impacts on those uses, to the extent feasible.

Policy HAZ-8.21: Construction and Maintenance Noise Limits. The City shall limit the hours of construction and maintenance activities to the less sensitive hours of the day (7:00 a.m. to 7:00 p.m. Monday through Saturday and 10:00 a.m. to 6:00 p.m. on Sundays and holidays).

Policy HAZ-8.22: Vibration Impact Assessment. The City shall require a vibration impact assessment for proposed projects in which heavy-duty construction equipment would be used (e.g. pile driving, bulldozing) within 200 feet of an existing structure or sensitive receptor. If applicable, the City shall require all feasible mitigation measures to be implemented to ensure that no damage or disturbance to structures or sensitive receptors would occur.

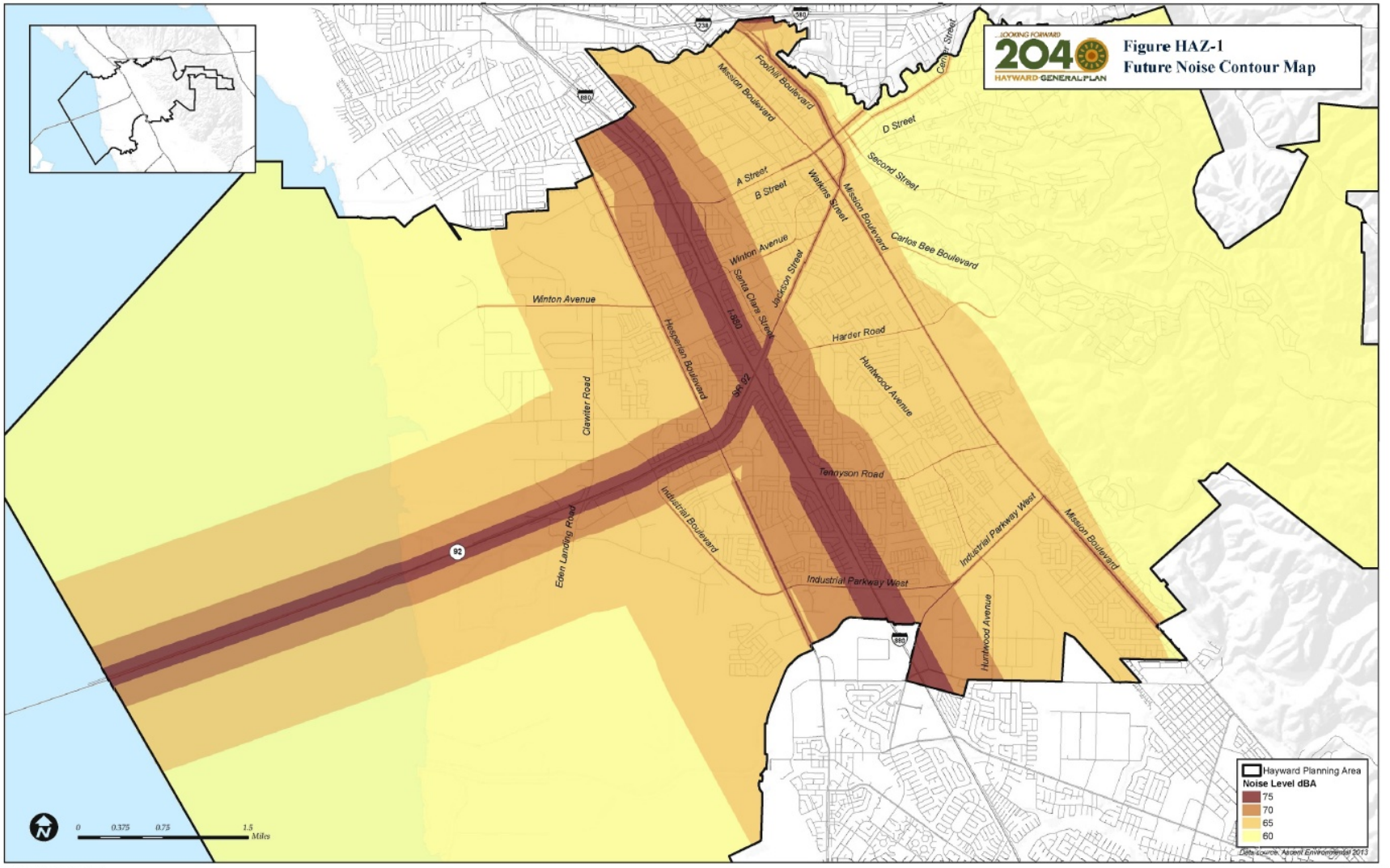
Policy HAZ-8.23: Transportation Vibration. The City shall require new residential and commercial projects located within 200 feet of existing major freeways and railroad lines (e.g. freight, Amtrak, and Bay Area Rapid Transit) to conduct a ground vibration and vibration noise evaluation consistent with City approved methodologies (e.g. Caltrans, Federal Transportation Authority).

TABLE HAZ-1
Exterior Noise Compatibility Standards for Various Land Uses

Land Use Type	Highest Level of Exterior Noise Exposure that is Regarded as "Normally Acceptable"[a] (Ldn[b] or CNEL[c])
Residential: Single-Family Homes, Duplex, Mobile Home	60
Residential: Townhomes and Multi-Family Apartments and Condominiums	65
Urban Residential Infill[d] and Mixed-Use Projects[e]	70
Lodging: Motels and Hotels	65
Schools, Libraries, Churches, Hospitals, Nursing Homes	70
Auditoriums, Concert Hall, Amphitheaters	Mitigation based on site-specific study
Sports Arena, Outdoor Spectator Sports	Mitigation based on site-specific study
Playgrounds, Neighborhood Parks	70
Golf Courses, Riding Stables, Water Recreation, Cemeteries	75
Office Buildings: Business, Commercial, and Professional	70
Industrial Manufacturing, Utilities, Agriculture	75

Source: Governor's Office of Planning and Research, *State of California General Plan Guidelines 2003,* October 2003.

a. As defined in the *State of California General Plan Guidelines 200,* "Normally Acceptable" means that the specified land uses is satisfactory, based upon the assumption that any building involved is of normal conventional construction, without any special noise mitigation. For projects located along major transportation corridors (major freeways, arterials, and rail lines) this "normally acceptable" exterior noise level may be exceeded for certain areas of the project site (e.g. the frontage adjacent to the corridor or parking areas) with the exception of primary open space areas (see policies HAZ-8.5 and HAZ-8.6).
b. Ldn or Day Night Average is an average 24-hour noise measurement that factors day and night noise levels.
c. CNEL or Community Noise Equivalent Level measurements are a weighted average of sound levels gathered throughout a 24-hour period.
d. Urban residential infill would include all types of residential development within existing or planned urban areas (such as Downtown, The Cannery Neighborhood, and the South Hayward BART Urban Neighborhood) and along major corridors (such as Mission Boulevard).
e. Mixed-Use Projects would include all mixed-use developments throughout the City of Hayward.



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September, 2013

City of Hayward Municipal Code. The City's Municipal Code contains a Noise Ordinance that limits noise levels during construction activities and at adjacent properties. Section 4-1.03.1 of the Municipal Code outlines residential and commercial property noise limits and Section 4-1.03.4 outlines construction noise limits. The applicable Municipal Code sections are presented below:

Section 4-1.03.1 Noise Restriction by Decibel

(a) Residential Property Noise Limits.

1. No person shall produce or allow to be produced by human voice, machine, device, or any combination of same, on residential property, a noise level at any point outside of the property plane that exceeds seventy (70) dBA between the hours of 7:00 a.m. and 9:00 p.m. or sixty (60) dBA between the hours of 9:00 p.m. and 7:00 a.m.

2. No person shall produce or allow to be produced by human voice, machine, device, or any combinations of same, on multifamily residential property, a noise level more than sixty (60) dBA three feet from any wall, floor, or ceiling inside any dwelling unit on the same property, when windows and doors of the dwelling unit are closed, except within the dwelling unit in which the noise source or sources may be located.

(b) Commercial and Industrial Property Noise Limits. Except for commercial and industrial property abutting residential property, no person shall produce or allow to be produced by human voice, machine, device, or any other combination of same, on commercial or industrial property, a noise level at any point outside of the property plane that exceeds seventy (70) dBA. Commercial and industrial property that abuts residential property shall be subject to the residential property noise limits set forth in sections (a)(1) and (2) above.

Section 4-1.03.4 Construction and Alteration of Structures; Landscaping Activities

Unless otherwise provided pursuant to a duly-issued permit or a condition of approval of a land use entitlement, the construction, alteration, or repair of structures and any landscaping activities, occurring between the hours of 10:00 a.m. and 6:00 p.m. on Sundays and holidays, and 7:00 a.m. and 7:00 p.m. on other days, shall be subject to the following:

(a) No individual device or piece of equipment shall produce a noise level exceeding eighty-three (83) dBA at a distance of twenty-five (25) feet from the source. If the device or equipment is housed within a structure on the property, the measurement shall be made outside the structure at a distance as close as possible to twenty-five (25) feet from the equipment.

(b) The noise level at any point outside the property plane shall not exceed eighty-six (86) dBA.

(c) During all other times, the decibel levels set forth in Section 4-1.03.1 shall control.

Existing Noise Environment

The project site is located southwest of Mission Boulevard between Torrano Avenue and Berry Avenue in the City of Hayward. Currently, the site is developed with three commercial buildings associated with former car dealerships and a vacant single-family residence. To the northwest of the site are industrial and residential land uses. Commercial uses are located to the southeast and opposite Mission Boulevard to the northwest. BART borders the project site to the southwest, and opposite the BART tracks and Whitman Street are residential land uses.

A noise monitoring survey was performed at the site beginning on Thursday January 5, 2017 and concluding on Friday January 6, 2017. The monitoring survey included three long-term and five short-term noise measurements, as shown in Figure 1. The noise environment at the site and in the surrounding areas results primarily from vehicular traffic along Mission Boulevard and from BART. Local traffic along Torrano Avenue and Berry Avenue, as well as occasional overhead aircraft associated with Hayward Executive Airport and Oakland International Airport also contribute to the noise environment in the area.

Long-term noise measurement LT-1 was made in the southernmost corner of the project site, adjacent to the BART tracks. The distance from LT-1 to the edge of the nearest tracks was approximately 55 feet. Hourly average noise levels at this location typically ranged from 63 to 68 dBA L_{eq} during the day, and from 46 to 67 dBA L_{eq} at night. The day-night average noise level from Thursday January 5, 2017 through Friday January 6, 2017 was 69 dBA L_{dn}. The daily trend in noise levels at LT-1 is shown in Figure 2.

Long-term noise measurement LT-2 was made in the parking lot of the property located southeast of the project, approximately 100 feet northwest of the centerline of Torrano Avenue and approximately 385 feet southwest of the centerline of Mission Boulevard. Hourly average noise levels at this location typically ranged from 54 to 62 dBA L_{eq} during the day, and from 46 to 58 dBA L_{eq} at night. The day-night average noise level from Thursday January 5, 2017 through Friday January 6, 2017 was 60 dBA L_{dn}. The daily trend in noise levels at LT-2 is shown in Figure 3.

Long-term noise measurement, LT-3, was made in the northernmost corner of the project site, approximately 105 feet southwest of the Mission Boulevard centerline. Hourly average noise levels at this location typically ranged from 63 to 68 dBA L_{eq} during the day, and from 56 to 68 dBA L_{eq} at night. The day-night average noise level from Thursday, January 5, 2017 through Friday, January 6, 2017 was 70 dBA L_{dn}. The daily trend in noise levels at LT-3 is shown in Figure 4.

Five short-term noise measurements were conducted on Thursday January 5, 2017 and on Friday January 6, 2017 in ten-minute intervals. ST-1 was made west of the project site, opposite the BART tracks, at the front of Whitman Villa Townhomes. ST-1 was approximately 30 feet southwest of the centerline of Whitman Street and approximately 80 feet southwest of the nearest BART tracks. During the ten-minute measurement period of ST-1, four BART train pass-bys occurred. The noise levels during observed due the trains ranged from 73 to 75 dBA at ST-1. The ten-minute $L_{eq(10)}$ measured at ST-1 was 66 dBA $L_{eq(10)}$, and the estimated day-night average

noise level was 68 dBA L_{dn}. ST-2 was located at the front yard equivalent of 652 Berry Avenue, north of the project site. ST-2 was approximately 20 feet northwest of the centerline of Berry Avenue. At ST-2, three BART trains passed by during the noise measurement, with maximum instantaneous noise levels ranging from 68 to 69 dBA at ST-2. The ten-minute $L_{eq(10)}$ measured at ST-2 was 56 dBA $L_{eq(10)}$, and the estimated day-night average noise level was 60 dBA L_{dn}. ST-3 was made along the northwest boundary of the project site, halfway between Mission Boulevard and the BART tracks. At ST-3, two BART trains were observed, with levels of 68 dBA. The ten-minute $L_{eq(10)}$ measured at ST-3 was 55 dBA $L_{eq(10)}$, and the estimated day-night average noise level was 55 dBA L_{dn}. ST-4 was made near LT-1 at the southernmost corner of the project site. This short-term measurement was made at the shared property line of the existing paint shop. However, during the measurement period, it was observed that the frequent BART train pass-bys were the predominant noise source. Noise due to the paint shop was at times audible but had little to no effect on the maximum instantaneous and average equivalent noise levels measurement at the site. ST-4 was approximately 185 feet northeast from the BART tracks, and during this ten-minute period, four trains were observed. The noise levels of the train pass-bys at ST-4 ranged from 78 to 80 dBA L_{eq}. The ten-minute $L_{eq(10)}$ measured at ST-4 was 64 dBA $L_{eq(10)}$, and the estimated day-night average noise level was 64 dBA L_{dn}. ST-5 was made at the intersection of Culp Avenue and Whitman Street, approximately 95 feet southwest of the BART tracks. Two consecutive ten-minute measurements were made at ST-5, and the $L_{eq(10)}$ measured at ST-5 was 64 dBA $L_{eq(10)}$ during the first measurement period and 65 dBA $L_{eq(10)}$ during the second period. During the 20-minute measurement period at ST-5, four train pass-bys were observed. The noise levels measured at ST-5 for these trains ranged from 61 to 70 dBA. The estimated day-night average noise level was 67 dBA L_{dn}. The results for short-term measurements are summarized in Table 6.

FIGURE 1 Noise Measurement Locations



Source: Google Earth, 2016.

FIGURE 2 Daily Trend in Noise Levels at LT-1, Thursday, January 5 through Friday, January 6, 2017

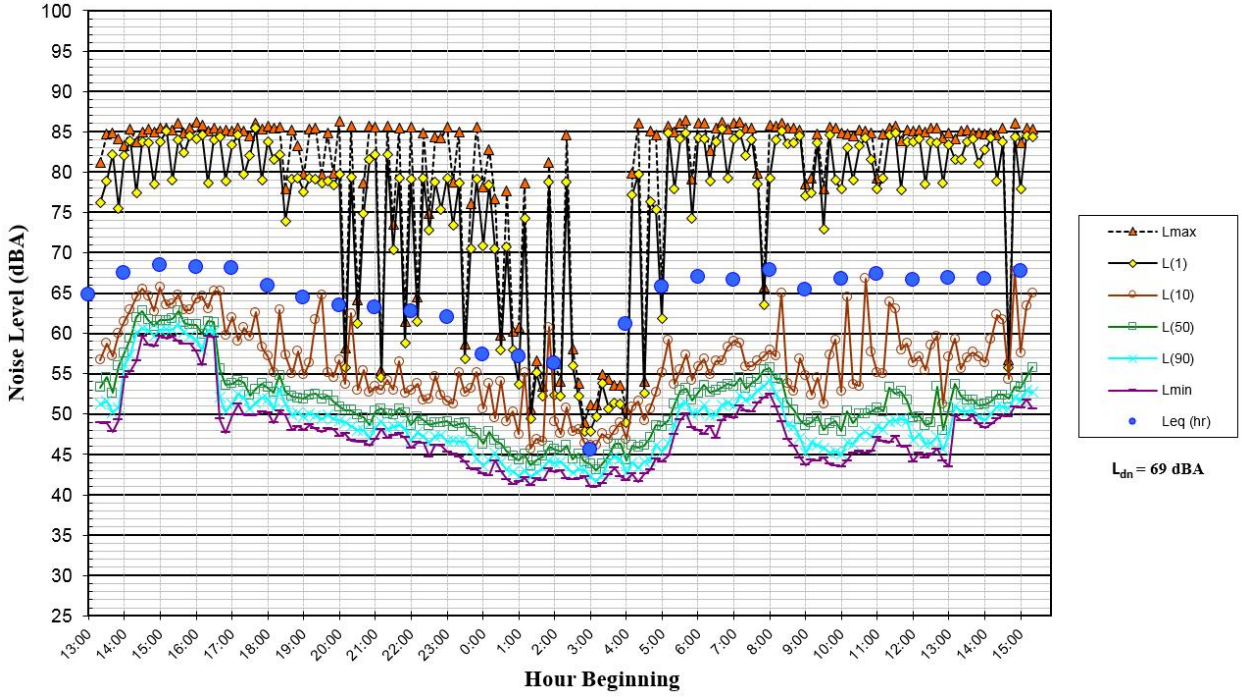


FIGURE 3 Daily Trend in Noise Levels at LT-2, Thursday, January 5 through Friday, January 6, 2017

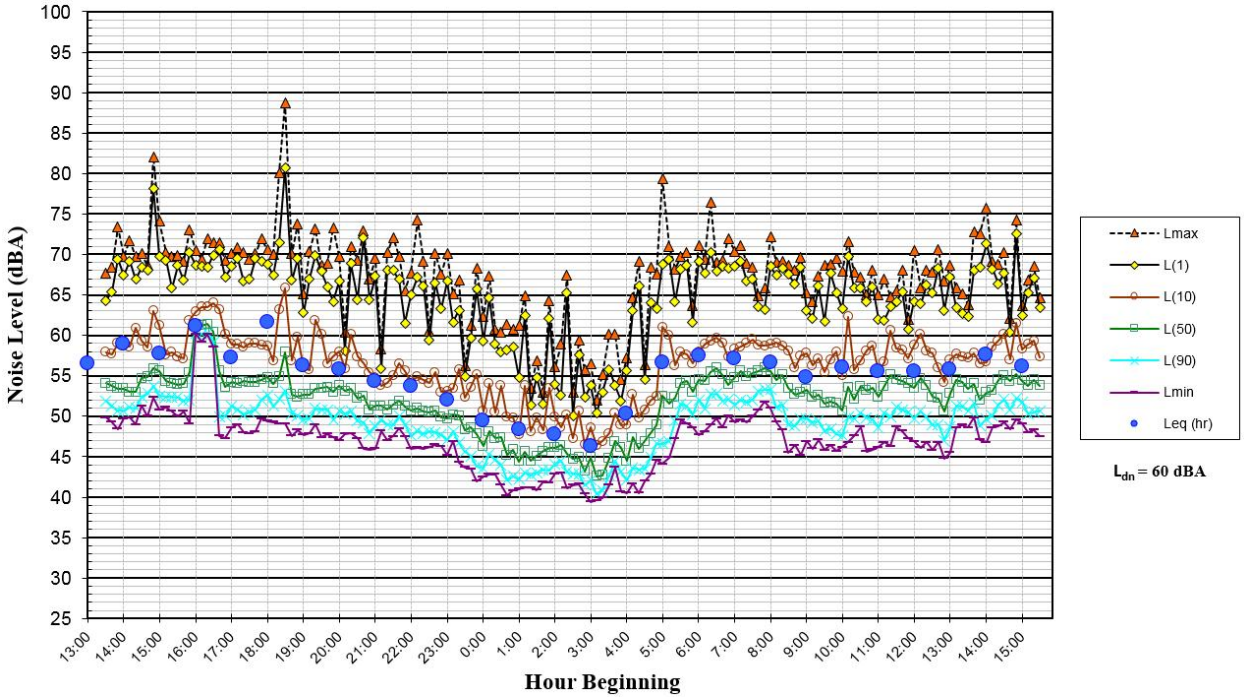


FIGURE 4 Daily Trend in Noise Levels at LT-3, Thursday, January 5 through Friday, January 6, 2017

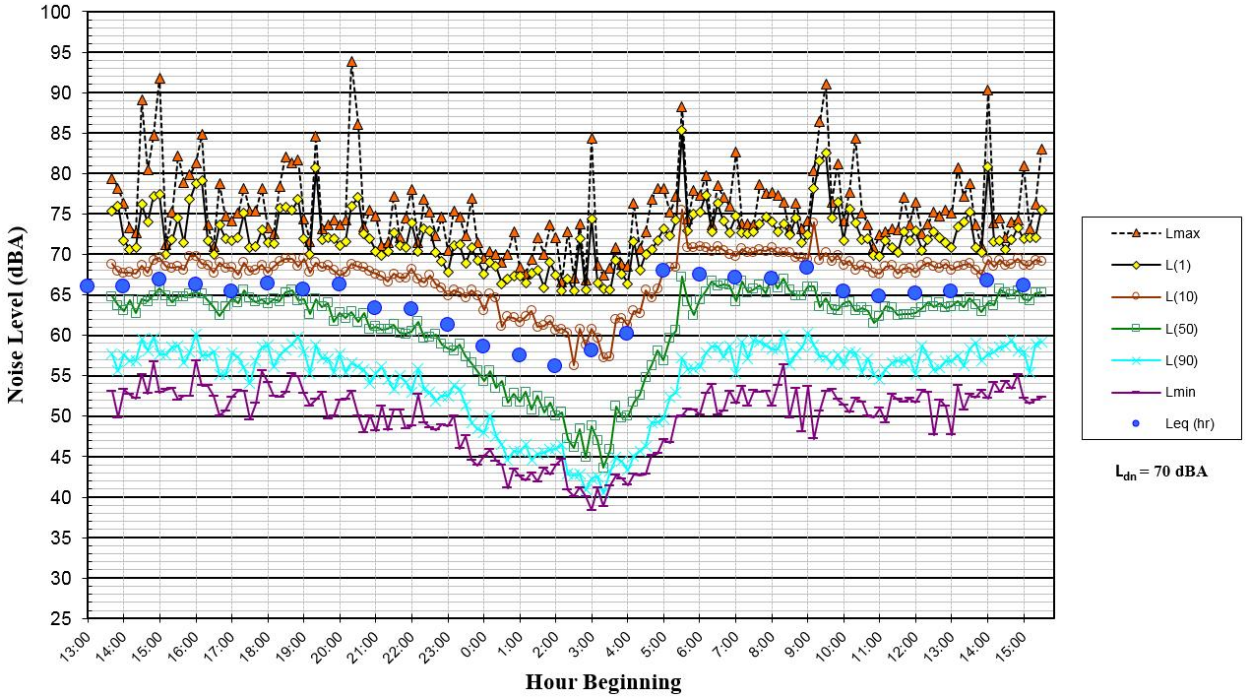


TABLE 6 Summary of Short-Term Noise Measurements (dBA)

Noise Measurement Location	Date, Time	L_{max}	$L_{(1)}$	$L_{(10)}$	$L_{(50)}$	$L_{(90)}$	$L_{eq(10)}$	L_{dn}*
ST-1: Front yard equivalent of Whitman Villa Townhomes	1/6/2017, 13:30-13:40	77	75	71	62	51	66	68
ST-2: Front yard equivalent of 652 Berry Avenue	1/6/2017, 13:50-14:00	69	68	59	51	48	56	60
ST-3: Northern boundary of project site	1/6/2017, 14:50-15:00	69	65	56	52	49	55	55
ST-4: Southernmost corner of site near LT-1	1/6/2017, 15:10-15:20	81	79	63	55	53	64	64
ST-5: At the intersection of Culp Avenue and Whitman Street	1/5/2017, 14:00-14:10	74	71	69	60	49	64	67
	1/5/2017, 14:10-14:20	75	72	69	64	55	65	

*Note: L_{dn} approximated by correlating to corresponding period at long-term site.

Existing Vibration Environment

Ground-borne vibration results from BART train pass-bys at the westernmost portion of the site. Vibration measurements of BART trains were made on Thursday, January 5, 2017 at two locations, V-1 and V-2, which were approximately 35 and 70 feet, respectively, from the center of the BART tracks. The locations of these measurements are shown on Figure 1.

The instrumentation used to make the vibration measurements included an Edirol Solid State Audio Recorder and seismic grade, low noise accelerometers firmly fixed to the ground. This system is capable of accurately measuring very low vibration levels. Vibration levels measured on the site are representative of vibration levels at ground level (i.e., vibration levels that would enter the building foundation).

Observations and measurements were made between 1:45 p.m. and 3:20 p.m. on January 5, 2017. During this time period, 21 BART trains passed the project site, 10 of which traveled in the southbound direction while the other 11 traveled in the northbound direction. The average speed of the trains was estimated to range from 65 to 70 mph, and the maximum overall vibration levels ranged from 68 to 82 VdB at V-1 and 60 to 65 VdB at V-2. All measurements recorded during the testing period are summarized in Table 7.

TABLE 7 Summary of Maximum Vibration Levels

Time of Event	Direction of Train Travel	Maximum Level, VdB	
		At 35 feet	At 70 feet
1:49 p.m.	Southbound	73	64
1:51 p.m.	Northbound	72	64
1:55 p.m.	Southbound	71	61
1:59 p.m.	Northbound	82	64
2:05 p.m.	Northbound	73	64
2:07 p.m.	Southbound	76	64
2:11 p.m.	Southbound	75	61
2:15 p.m.	Northbound	72	64
2:20 p.m.	Northbound	73	65
2:24 p.m.	Southbound	71	62
2:28 p.m.	Southbound	72	64
2:34 p.m.	Northbound	73	65
2:36 p.m.	Southbound	69	61
2:44 p.m.	Northbound	70	63
2:49 p.m.	Northbound	72	65
2:57 p.m.	Southbound	68	61
3:01 p.m.	Northbound	73	65
3:05 p.m.	Southbound	68	60
3:07 p.m.	Northbound	73	65
3:11 p.m.	Southbound	71	62
3:17 p.m.	Northbound	73	64

NOISE IMPACTS AND MITIGATION MEASURES

Significance Criteria

Paraphrasing from Appendix G of the CEQA Guidelines, a project would normally result in significant noise impacts if noise levels conflict with adopted environmental standards or plans, if the project would generate excessive ground-borne vibration levels, or if ambient noise levels at sensitive receivers would be substantially increased over a permanent, temporary, or periodic basis. The following criteria were used to evaluate the significance of environmental noise resulting from the project:

- A significant noise impact would be identified if the project would expose persons to or generate noise levels that would exceed applicable noise standards presented in the General Plan or Municipal Code.

- A significant impact would be identified if the construction of the project would expose persons to excessive vibration levels. Ground-borne vibration levels exceeding 0.3 in/sec PPV would have the potential to result in cosmetic damage to normal buildings.

- A significant impact would be identified if the project would expose persons to groundborne vibration levels exceeding the FTA's vibration impact assessment criteria.

- A significant impact would be identified if traffic generated by the project would substantially increase noise levels at sensitive receivers in the vicinity. A substantial increase would occur if: a) the noise level increase is 5 dBA L_{dn} or greater, with a future noise level of less than 60 dBA L_{dn}, or b) the noise level increase is 3 dBA L_{dn} or greater, with a future noise level of 60 dBA L_{dn} or greater.

- A significant noise impact would be identified if construction-related noise would temporarily increase ambient noise levels at sensitive receptors. Hourly average noise levels exceeding 60 dBA $L_{eq,}$ and the ambient by at least 5 dBA L_{eq}, for a period of more than one year would constitute a significant temporary noise increase at adjacent residential land uses.

- A significant impact would be identified if the project would expose people residing or working in the project area to excessive aircraft noise levels.

Impact 1: **Noise and Land Use Compatibility.** The noise environment at the project site would exceed the exterior and interior noise level thresholds established by the City of Hayward. The completion of an acoustical study during final design of the project, as required by mitigation measures contained in the Mission Boulevard Corridor Specific Plan Environmental Impact Report,[2] would reduce the impact to a **less-than-significant** level.

[2] *Lamphier-Gregory*, "Mission Boulevard Corridor Specific Plan: Final Program EIR," September 2013.

According to Policy HAZ-8.5 of the City of Hayward General Plan, exterior noise levels at common outdoor use areas of mixed-use residential land uses located along the Mission Boulevard corridor are required to be maintained at or below 70 dBA L_{dn}. The exterior noise limit is not applied to secondary open space areas, such as front yards, balconies, stoops, and porches. The State of California and City of Hayward require that interior noise levels be maintained at 45 dBA L_{dn} or less with the windows closed for residences and lodging facilities where occupants sleep. Additionally, land uses exposed to BART train pass-bys must be maintained at or below 50 dBA L_{max} at night (between 10:00 p.m. and 7:00 a.m.) and at or below 55 dBA L_{max} during the day (between 7:00 a.m. and 10:00 p.m.) with the windows closed. These standards also apply to hotels. Commercial uses, which would be used during daytime hours only, are required to be maintained at or below 45 dBA L_{eq} in indoor spaces during peak hours.

The future noise environment at the project site would continue to result primarily from vehicular traffic along Mission Boulevard and BART train pass-bys along the adjacent tracks. Existing and future 2035 traffic data was provided for the proposed project. The 2035 Cumulative Plus Project traffic condition provides the cumulative future traffic volumes expected at intersections in the vicinity of the project site after full project build-out. Compared to the Existing traffic volumes along the roadways in the project vicinity, there would be a 1 dBA L_{dn} noise level increase along Mission Boulevard assuming Cumulative Plus Project Conditions. According to existing BART schedules, a total of 256 daily BART train pass-bys occur along the adjacent tracks. Under future conditions, this is not expected to change substantially. Therefore, at the measurement locations described above, the future exterior noise levels would be 71 dBA L_{dn} at a distance of 105 feet from the centerline of Mission Boulevard (LT-3) and 69 dBA L_{dn} at a distance of 55 feet from the edge of the nearest BART tracks (LT-1).

Future Exterior Noise Environment

In May 2016, *Bollard Acoustical Consultants, Inc.*[3] conducted a noise assessment for the proposed project. However, the site plan for the proposed project has been updated since the study, and the locations and types of outdoor use areas have changed. The following analysis provides an update to the exterior noise assessment based on the site plan provided in February 2017.

The project proposes the construction of a Marriott Residence Inn Hotel with first floor commercial retail fronting Mission Boulevard and up to 140 three-story townhomes. According to the proposed site plan, the hotel and commercial retail would not have outdoor use areas that would be sensitive to environmental noise. The site plan indicates that the residential component of the project would not include any private use outdoor areas, such as backyards.[3] While all areas between the buildings are identified as common use space, most of this consists of walking paths and front door access to the townhomes. These would not be considered noise-sensitive outdoor use areas. The project description and site plan for the proposed project identifies three

[3] As stated in HAZ-8.5 of the City of Hayward General Plan, primary open space area of urban residential infill and mixed-use projects consists of private rear yards for townhomes and common courtyards, roof gardens, or gathering spaces for multi-family or mixed-use projects. The exterior noise standards shall be measured at the approximate center of the primary open space area. This standard does not apply to secondary open space areas, such as front yards, balconies, stoops, and porches.

common use outdoor areas, which would have gardens, a playground, outdoor barbeques and kitchens, and space where activities could occur: space between Buildings 2 and 3, space between Buildings 4 and 5, and space between Buildings 6, 7, 10, and 11. These common use areas would be the only exterior locations subject to the City's exterior noise threshold.

Along the northwest and southeast boundaries of the project site that are shared with existing land uses, a six-foot concrete screen wall would be constructed. Along the southwest boundary of the site, an eight-foot precast concrete wall would be constructed. While these walls would provide some shielding from traffic and train noise, all calculations provided in this analysis are not accounting for these noise attenuation designs.

The outdoor use area between Buildings 2 and 3 is located adjacent to the hotel property and would be mostly shielded from traffic noise along Mission Boulevard by the proposed hotel. This outdoor use area would also receive shielding from train pass-bys by the proposed townhome buildings. The setback from the center of this area to the centerline of the Mission Boulevard would be approximately 280 feet. At this distance and assuming partial shielding from the proposed hotel and other intervening buildings, the future exterior noise environment at this location would be at or below 65 dBA L_{dn}.

A smaller common open space area is located between Buildings 4 and 5. This outdoor use area is located west of the proposed hotel and would also be partially shielded from Mission Boulevard traffic by the intervening hotel building. The center of this open space would be set back approximately 260 feet from the centerline of Mission Boulevard, and at this distance and assuming partial shielding from the intervening buildings, the future exterior noise levels at this open space would be at or below 65 dBA L_{dn}.

Due to the location of the outdoor use area between Buildings 6, 7, 10, and 11, this area would receive adequate shielding from the proposed hotel and townhomes. The setback from the centerline of Mission Boulevard would be approximately 425 feet, and the setback from the edge of the train tracks would also be approximately 425 feet. At this distance and assuming partial shielding from the proposed buildings, the future exterior noise environment at this location would be at or below 65 dBA L_{dn}.

The outdoor use areas associated with the proposed project would meet the City of Hayward's 70 dBA L_{dn} exterior noise level requirements for properties along the Mission Boulevard corridor. This would be a less-than-significant impact.

Future Interior Noise Environment

The *Bollard* study addressed the future interior noise levels at the proposed project site. From this study, the following design features were recommended for the proposed project:

- Mechanical ventilation (air conditioning) should be provided for all residences in this development to allow the occupants to close doors and windows as desired to achieve compliance with the applicable interior noise level criteria.

- The nearest proposed condominium windows from which BART tracks are visible should be upgraded to a minimum STC rating of 32 in order to comply with the City's interior L_{max} standards.

- To provide a margin of safety for Mission Boulevard traffic noise relative to the City's interior noise standard, upper-floor hotel bedroom windows adjacent to Mission Boulevard should be upgraded to STC 32. The interior noise standard is not applicable to the retail portion of the building adjacent to Mission Boulevard and interior corridors of the hotel.

Since the *Bollard* study, refinements have been made to the site plan. The following analysis was conducted for the site plan dated February 2017 that incorporated the recommendation of the *Bollard* study.

Proposed Hotel

According to the site plan dated February 2017, the northeastern façade of hotel would be set back from the centerline of Mission Boulevard by approximately 90 to 120 feet. At these distances, the exterior-facing rooms would be exposed to future exterior noise levels ranging from 70 to 72 dBA L_{dn}. The northwestern and southeastern façades of hotel would have setbacks from the centerline of Mission Boulevard ranging from 90 to 190 feet. The rooms along these façades would be exposed to future exterior noise levels ranging from 67 to 72 dBA L_{dn}. The southwestern building façade would be mostly shielded from traffic noise along Mission Boulevard, but the upper floors of the hotel would have direct line-of-sight to the BART tracks. With a setback of 670 feet from the edge of the tracks, the exterior-facing rooms would be exposed to future exterior noise levels of less than 60 dBA L_{dn}. As shown in Figure 2, typical maximum instantaneous noise levels at a distance of 55 feet would be 85 dBA L_{max} under existing conditions. Since BART train activity is not expected to change substantially under future conditions, the exterior-facing rooms on the southwestern façade of the proposed hotel would be exposed to future exterior noise levels up to 67 dBA L_{max} at a distance of 670 feet.

Interior noise levels would vary depending upon the design of the buildings (relative window area to wall area) and the selected construction materials and methods. Standard commercial hotel construction provides approximately 20 to 25 dBA of exterior-to-interior noise reduction, assuming windows are closed. For exterior noise environments ranging from 65 to 70 dBA L_{dn}, interior noise levels can typically be maintained below 45 dBA L_{dn} with the incorporation of an adequate forced-air mechanical ventilation system in each hotel room, allowing the windows to be closed. In noise environments of 70 dBA L_{dn} or greater, a combination of forced-air mechanical ventilation and sound-rated construction methods are often necessary to meet the interior noise level limit.

Assuming standard construction materials, the projected interior noise levels for the proposed hotel would potentially be as high as 50 dBA L_{dn} at the rooms facing Mission Boulevard. Rooms facing the BART tracks would be below 45 dBA L_{dn} and as high as 48 dBA L_{max}. With the implementation of the design features recommended as part of the *Bollard* study (i.e., windows with a minimum STC of 32 for the rooms facing Mission Boulevard), interior noise levels within the rooms adjacent to Mission Boulevard would be reduced to levels at or below 45 dBA L_{dn}.

Proposed Townhomes

While Buildings 2 through 4 would be mostly shielded from Mission Boulevard traffic and BART train pass-bys, Buildings 1 and 5 would have some direct line-of-sight to Mission Boulevard. The proposed six-foot concrete wall would provide some shielding to the ground-floor rooms of Buildings 1 and 5, but the second and third floors would be exposed to the traffic noise. These buildings would be set back approximately 235 to 250 feet from the centerline of Mission Boulevard, and at these distances, the units facing Mission Boulevard would be exposed to future unmitigated exterior noise levels up to 65 dBA L_{dn}. The second row of townhomes would have setbacks ranging from 335 to 370 feet. At these distances and with shielding provided by intervening proposed buildings, these units would be exposed to future exterior noise levels at or below 60 dBA L_{dn}.

Buildings 22 through 27 would be located adjacent to the BART tracks. With an eight-foot precast concrete wall, the ground floors of the townhomes in these buildings would receive shielding, but the upper floors, which would include bedrooms, would have direct line-of-sight to the train pass-bys. The setback of the nearest units to the edge of the tracks would be approximately 65 feet. At this distance, the nearest units would be exposed to future unmitigated exterior noise levels up to 69 dBA L_{dn} and up to 84 dBA L_{max}. The end units in these buildings located farthest from the tracks would have setbacks of 185 feet. At this distance, the end units would be exposed to future unmitigated exterior noise levels up to 63 dBA L_{dn} and up to 78 dBA L_{max}. The second row of townhomes would have setbacks ranging from 230 to 295 feet. At these distances and assuming partial shielding from intervening buildings, these units would be exposed to future exterior noise levels at or below 60 dBA L_{dn} and maximum instantaneous noise levels up to 75 dBA L_{max}.

The remaining townhome units located on the interior of the site and along Drive Aisle C would be adequately shielded from existing and proposed buildings. These units would be exposed to future exterior noise levels at or below 60 dBA L_{dn} and up to 70 dBA L_{max}.

Standard residential construction provides approximately 15 dBA of exterior-to-interior noise reduction, assuming the windows are partially open for ventilation. Standard construction with the windows closed provides approximately 20 to 25 dBA of noise reduction in interior spaces. Where exterior noise levels range from 60 to 65 dBA L_{dn}, the inclusion of adequate forced-air mechanical ventilation is often the method selected to reduce interior noise levels to acceptable levels by closing the windows to control noise. Where noise levels exceed 65 dBA L_{dn}, forced-air mechanical ventilation systems and sound-rated construction methods are normally required. Such methods or materials may include a combination of smaller window and door sizes as a percentage of the total building façade facing the noise source, sound-rated windows and doors, sound rated exterior wall assemblies, and mechanical ventilation so windows may be kept closed at the occupant's discretion.

Assuming standard construction materials and windows to be partially open for ventilation, the interior noise levels for the proposed project would be up to 50 dBA L_{dn} at Buildings 1 and 5 and at or below 45 dBA L_{dn} for the second row of townhomes nearest to Mission Boulevard. For

Buildings 22 through 27 located nearest to the BART tracks, future interior noise levels would be up to 54 dBA L_{dn} and up to 69 dBA L_{max} with standard construction materials. The buildings located in the second row back from the BART tracks would be exposed to future interior noise levels up to 45 dBA L_{dn} and up to 60 dBA L_{max}.

The incorporation of windows with a minimum STC rating of 32 at Buildings 22 through 27 and forced-air mechanical ventilation at all residences, as recommended in the *Bollard* study, the City's interior noise thresholds would be met.

In 2013, a noise assessment was conducted for the Mission Boulevard Corridor Specific Plan EIR.[4] The following mitigation measures from the EIR would apply to the proposed project:

Noise-1a: For subsequent residential projects proposed in the Project area, an acoustic analysis shall be prepared by a qualified acoustical specialist. to demonstrate that interior noise levels can be maintained below 45 dBA L_{dn} (Qualifications shall include the following: Bachelor of Science or higher degree from a qualified program in engineering, physics, or architecture offered by an accredited university or college, and five years of experience in noise control engineering). This can typically be accomplished with the incorporation of an adequate forced air mechanical ventilation system in the residential units to allow residents the option of controlling noise by keeping the windows closed.

Noise-1b: For subsequent commercial, industrial and institutional projects proposed in areas where exterior day-night average noise levels are, or are projected to be 60 to 70 dBA L_{dn}, the need for noise attenuation measures shall be determined by a qualified acoustical specialist on a project by project basis at the time development is proposed. Standard office construction methods typically provide about 25 to 30 decibels of noise reduction in interior spaces.

Noise-1c: Noise levels exceed, or are projected to exceed 70 dBA L_{dn}, within 200 feet of the railroad tracks, within 150 feet of the centerline of Mission Boulevard, and within 175 feet of the centerline of Jackson Street. At these locations with increased noise levels, an acoustic analysis shall be prepared by a qualified acoustical specialist to demonstrate how interior noise levels can be maintained below 45 dBA L_{dn} and the adopted single event residential limits set forth in the Noise Element. Potential strategies are expected to be more robust than measures required by Mitigation Measure Noise 1-a and may include, but are not limited to, the inclusion of windows and doors with high Sound Transmission Class (STC) ratings, and the incorporation of forced-air mechanical ventilation systems necessary to meet 45 dBA L_{dn} and the L_{max} noise limits. Noise barriers may be necessary to shield outdoor activity areas at multi-family residential uses facilitated by the Plan.

From our analysis of the site plan dated February 2017, the recommendations provided by *Bollard* study and incorporated into the proposed project would meet the City's interior noise standards. The *Bollard* acoustical study will be updated during final project design as required in

the above mitigation measures established in the Mission Boulevard Specific Plan. This would be a less-than-significant impact.

Mitigation Measure 1: **No further mitigation required.**

Impact 2a: **Exposure to Excessive Ground-borne Vibration due to Railroad Operations.** Vibration levels generated by passenger trains passing the project site would not exceed the FTA guidelines for compatible vibration levels at the multi-family residences. **This is a less-than-significant impact.**

The City of Hayward has adopted the U.S. Department of Transportation, Federal Transit Administration's (FTA) vibration impact assessment criteria for use in evaluating vibration impacts associated with development within 200 feet of rail lines. The FTA vibration impact criteria are based on maximum overall levels for a single event. The impact criteria for ground-borne vibration are shown in Table 5. Note, there are criteria for frequent events (more than 70 events of the same source per day), occasional events (30 to 70 vibration events of the same source per day), and infrequent events (less than 30 vibration events of the same source per day).

According to existing BART schedules, a total of 256 daily BART train pass-bys occur along the adjacent tracks. This would fall in the "frequent events" category in Table 5. The threshold is, therefore, 72 VdB for residential land uses. The nearest buildings to the edge of the adjacent tracks have setbacks of approximately 65 feet, which is the approximate setback of measurement V-2. The maximum vibration level measured at V-2 was 65 VdB, which is below the 72 VdB threshold level. Persons at rest may perceive the vibration; however, vibration controls are not required. This is a less-than-significant impact.

Mitigation Measure 2a: **None required.**

Impact 2b: **Exposure to Excessive Ground-borne Vibration due to Construction.** Construction-related vibration caused by some types of construction activity could be in excess of 0.3 in/sec PPV at the existing residences and commercial structures adjacent to the project site. With the implementation of vibration-reducing measures as part of the project, the impact would be **less-than-significant.**

The construction of the project may generate perceptible vibration when heavy equipment or impact tools (e.g. jackhammers, hoe rams) are used. Construction activities would include site demolition, preparation work, foundation work, and new building framing and finishing. The proposed project would not require pile driving, which can cause excessive vibration.

For structural damage, the California Department of Transportation recommends a vibration limit of 0.5 in/sec PPV for buildings structurally sound and designed to modern engineering standards, which typically consist of buildings constructed since the 1990s. A conservative vibration limit of 0.3 in/sec PPV has been used for buildings that are found to be structurally sound but where structural damage is a major concern, which would include older residences built with conventional materials. For ancient buildings or buildings that are documented to be

structurally weakened, a conservative limit of 0.08 in/sec PPV is often used to provide the highest level of protection. No ancient buildings or buildings that are documented to be structurally weakened are known to adjoin the project site. For the purpose of this study, ground-borne vibration levels exceeding the conservative 0.3 in/sec PPV limit would have the potential to result in a significant vibration impact.

Table 8 presents typical vibration levels that could be expected from construction equipment at a distance of 25 feet. Project construction activities, such as drilling, the use of jackhammers, rock drills and other high-power or vibratory tools, and rolling stock equipment (tracked vehicles, compactors, etc.) may generate substantial vibration in the immediate vicinity. Vibration levels would vary depending on soil conditions, construction methods, and equipment used.

The multi-family residences and commercial buildings located to the northwest of the project site would range from 5 to 15 feet from the shared property line. At these distances, vibration levels would be as high as 0.37 in/sec PPV at 15 feet to 1.23 in/sec PPV at 5 feet. Adjacent to the project site to the southeast, existing commercial buildings would be 50 to 100 feet from the shared property line. At these distances, vibration levels would be up to 0.1 in/sec PPV. Opposite the BART tracks to the southwest, single- and multi-family residences are approximately 200 feet from the project site boundary, and at this distance, vibration levels would be at or below 0.02 in/sec PPV. To the northeast, opposite Mission Boulevard, existing commercial buildings range from 90 to 135 feet from the project site. At these distances, vibration levels would be at or below 0.05 in/sec PPV.

The Mission Boulevard Corridor EIR provides the following mitigation measure to reduce construction vibration levels:

Noise-2b: New development shall minimize vibration impacts to adjacent uses during demolition and construction. For sensitive historic structures, a vibration limit of 0.08 in/sec PPV (peak particle velocity) will be used to minimize the potential for cosmetic damage to the building. A vibration limit of 0.30 in/sec PPV will be used to minimize the potential for cosmetic damage at buildings of normal conventional construction. For activities involving the use of a pile driver, a Vibration Control Plan shall be prepared and approved by the Development Services Director or Designee. The Vibration Control Plan shall be prepared by a qualified professional, identify the proximity and sensitivity of nearby structures, and include measures sufficient to reduce vibration below levels before the aforementioned limits.

The implementation of the Vibration Control Plan only applies to projects involving pile driving. Since this project does not include pile driving, this mitigation measure would not apply to the proposed project.

Vibration levels due to project construction activities would have the potential to exceed the 0.3 in/sec PPV significance threshold used to assess cosmetic damage to buildings that are structurally sound at the residential structures to the northwest. As part of the proposed project, the project applicant will implement the following best management practices where

construction activities involving high-powered vibratory equipment occurs within 20 feet of adjacent residences:

- Compaction activities will not be conducted using a vibratory roller within 20 feet of adjacent residences. In such areas, compaction will be performed using smaller hand tampers.

- Demolition, earth-moving, and other ground-impacting operations will use the smallest equipment possible to complete the work. The use of large bulldozers, hoe rams, drill-rigs shall be avoided within 20 feet of the existing adjacent residences.

- Demolition activities will not involve the dropping of heavy objects within 20 feet of adjacent residences.

With the implementation of these best management practices, vibration levels would be below 0.1 in/sec PPV or less. Therefore, vibration levels associated with project construction would be below the threshold of 0.3 in/sec PPV, and the impact associated with ground-borne vibration during construction would be less-than-significant.

TABLE 8 Vibration Source Levels for Construction Equipment

Equipment		PPV at 25 ft. (in/sec)	Approximate L_v at 25 ft. (VdB)
Pile Driver (Impact)	upper range	1.158	112
	typical	0.644	104
Pile Driver (Sonic)	upper range	0.734	105
	typical	0.170	93
Clam shovel drop		0.202	94
Hydromill (slurry wall)	in soil	0.008	66
	in rock	0.017	75
Vibratory Roller		0.210	94
Hoe Ram		0.089	87
Large bulldozer		0.089	87
Caisson drilling		0.089	87
Loaded trucks		0.076	86
Jackhammer		0.035	79
Small bulldozer		0.003	58

Source: Transit Noise and Vibration Impact Assessment, United States Department of Transportation, Office of Planning and Environment, Federal Transit Administration, May 2006.

Impact 3a: Substantial Permanent Noise Increase - Traffic. The proposed project would not result in a permanent noise level increase at the existing residential land uses in the project vicinity. **This is a less-than-significant impact.**

A significant impact would result if traffic generated by the project would substantially increase noise levels at sensitive receptors in the project vicinity. A substantial increase would occur if: a) the noise level increase is 5 dBA L_{dn} or greater, with a future noise level of less than 60 dBA

L_{dn}, or b) the noise level increase is 3 dBA L_{dn} or greater, with a future noise level of 60 dBA L_{dn} or greater. Based on the results of the noise measurement survey, existing noise levels at the nearby residences exceed 60 dBA L_{dn}, and therefore, would continue to do so under future plus project conditions. For the proposed project, a significant impact would occur if existing levels would increase by 3 dBA L_{dn} or more due to project traffic.

The results of the traffic analysis prepared for the proposed project included peak hour turning movements for intersections surrounding the project site. Comparing the traffic results for Existing and Existing Plus Project conditions, the proposed project would result in a traffic noise increase of 1 dBA L_{dn} or less along all roadway segments in the site vicinity. Therefore, the project would not result in a substantial increase in traffic volumes and associated noise levels. This impact is a less-than-significant impact.

Mitigation Measure 3a: None required.

Impact 3b: Cumulative Traffic Noise Increase. The proposed project would not make a cumulatively considerable contribution to future noise levels at residential land uses in the vicinity. **This is a less-than-significant impact.**

A significant cumulative impact would occur if two criteria are met: 1) if the cumulative traffic noise level increase was 3 dBA L_{dn} or greater for future levels exceeding 60 dBA L_{dn} or was 5 dBA L_{dn} or greater for future levels at or below 60 dBA L_{dn}; and 2) if the project would make a "cumulatively considerable" contribution to the overall traffic noise increase. A "cumulatively considerable" contribution would be defined as an increase of 1 dBA L_{dn} or more attributable solely to the proposed project.

The traffic study for the proposed project included three cumulative 2035 scenarios: Cumulative Base conditions, Cumulative Plus Hotel 2 (no project) conditions, and Cumulative Plus Hotel 2 Plus Hotel 1 conditions. Hotel 2 is assumed to be an approved project in the immediate vicinity of the project site but not the proposed hotel included in the project conditions. For the purposes of this impact analysis, the Cumulative traffic noise level increases were calculated by comparing the Cumulative Plus Hotel 2 Plus Hotel 1 scenario is treated as the Cumulative Plus Project conditions and is compared to both of the other cumulative scenarios.

Comparing the Cumulative Plus Project volumes, the Cumulative Base volumes, and the Cumulative Plus Hotel 2 (no project) volumes to the Existing traffic volumes, roadway segments that increase by 3 dBA L_{dn} or more in the project vicinity include Orchard Avenue west of Mission Boulevard, Berry Avenue east of Mission Boulevard, Harder Road, and Tennyson Road. Since a 3 dBA L_{dn} or more increase was estimated for all three cumulative scenarios, the project's contribution would be less than 1 dBA L_{dn}. Therefore, the project would not make a cumulatively considerable contribution to increased noise levels. This would be a less-than-significant impact.

Mitigation Measure 3b: None required.

Impact 4: **Substantial Permanent Noise Increase – Mixed-Use Development.** The proposed project could generate noise in excess of standards established in the City's General Plan, Municipal Code, and Noise Ordinance at the nearby sensitive receptors. **This is a less-than-significant impact.**

Mechanical Equipment Noise

Section 4-1.03.1 of the City's Municipal Code limits noise levels received on the property plane of residential land uses to 70 dBA L_{eq} during daytime hours (between 7:00 a.m. and 9:00 p.m.) and 60 dBA L_{eq} during nighttime hours (between 9:00 p.m. and 7:00 a.m.).

Mixed-use, multi-family residential, and hotels typically require various mechanical equipment, such as air conditioners, exhaust fans, and air handling equipment for ventilation of the buildings. There are a number of variables inherent in the mechanical equipment needs of the project (number and types of units, locations, size, housing, specs, etc.).

Proposed Residential Land Uses

Based on the project site plan, the mechanical equipment for the townhome units would be located on the ground floor at the end unit. Typical air conditioning units for residences have noise levels of 50 dBA L_{eq} at a distance of eight feet.

For buildings with four to five units, equipment for each townhome would be located at the same end unit. For buildings with six units, equipment for four units would be located at one end unit, while equipment for the remaining two units would be located at the other end unit. Therefore, the combined equipment noise for the worst-case scenario townhome building would be 57 dBA L_{eq} at eight feet. Buildings 6, 10, and 14, which would all be located along the northern boundary of the project site, adjacent to existing noise-sensitive receptors, would result in noise levels of 57 dBA L_{eq} at eight feet. Assuming the end unit with the mechanical equipment would face the adjacent residences, the distance from the mechanical equipment to the shared property line of the adjacent residences would be approximately 15 feet. At this distance, the combined noise levels for all five mechanical units would be 52 dBA L_{eq}. This would not exceed the City's daytime or nighttime threshold.

The ambient noise levels at the adjacent residences during daytime and nighttime hours would be similar to levels measured at LT-2, due to the similar setbacks from Mission Boulevard and the train tracks. During the daytime, ambient noise levels range from 54 to 62 dBA L_{eq}, and at night, ambient levels range from 46 to 58 dBA L_{eq}. Other existing noise-sensitive land uses surrounding the project site would be closer in proximity to the train tracks, and therefore, the ambient conditions would be higher, as shown in measurements made at LT-1. Since the noise levels for typical air conditioning units would fall within the range of existing ambient conditions and would not exceed the City's noise limits, the proposed townhomes are not expected to significantly increase the ambient noise level at the nearby sensitive receptors. This is a less-than-significant impact.

Proposed Hotel

The site plan for the proposed hotel indicates that mechanical and electrical rooms would be located on the ground floor of the hotel approximately 50 feet from the shared property line of the proposed residential townhomes. Both the mechanical and electrical rooms would be enclosed, providing adequate shielding from mechanical equipment noise. Additionally, solar

panels are proposed for the rooftop of the hotel; however, solar panels do not generate noise, and the transformers that are associated with solar panels typically result in very low levels of noise. The noise levels from the rooftop equipment would not be audible above ambient noise levels at the nearest noise-sensitive receptors, which would consist of the existing residences located to the northwest of the project site and the future proposed project townhomes located adjacent to the proposed hotel. The nearest existing residential land use would be approximately 250 feet to the west of the proposed hotel, and the nearest proposed project residential land use would be approximately 50 feet to the southwest of the proposed hotel building. Mechanical equipment noise generated at the hotel would not exceed the existing ambient conditions or the City's thresholds at the nearest residential land use. This is expected to be a less-than-significant impact.

Truck Loading and Unloading

Truck deliveries from the small retail shops and hotel would have the potential to generate noise. Based on the size of the commercial retail uses and the proposed hotel, smaller vender trucks would be used at these locations. Vendor trucks would generate maximum noise levels ranging from 65 to 70 dBA L_{max} at a distance of 50 feet. While the delivery service doors were not identified in the site plan, the most likely location would be the back-door access from the enclosed parking lots on the ground floor. This delivery location would provide shielding for the nearest existing residence and for the adjacent proposed townhomes. With the shielding from the intervening hotel structure, this would result in a less-than-significant impact.

Mitigation Measure 4: **None required.**

Impact 5: **Temporary Construction Noise.** Existing noise-sensitive land uses would be exposed to a temporary increase in ambient noise levels due to project construction activities. The incorporation of Mitigation Measure Noise-5 of the Mission Boulevard Corridor DEIR as project conditions of approval would result in a **less-than-significant** temporary noise impact.

Noise impacts resulting from construction depend upon the noise generated by various pieces of construction equipment, the timing and duration of noise-generating activities, and the distance between construction noise sources and noise-sensitive areas. Construction noise impacts primarily result when construction activities occur during noise-sensitive times of the day (e.g., early morning, evening, or nighttime hours), the construction occurs in areas immediately adjoining noise-sensitive land uses, or when construction lasts over extended periods of time.

Policy HAZ-8.21 of the City's General Plan limits the allowable construction hours to between 7:00 a.m. and 7:00 p.m. Monday through Saturday and to between 10:00 a.m. and 6:00 p.m. on Sundays and holidays. Performance standards for construction noise, which are specified in the City of Hayward Municipal Code Section 4-1.03.4, require that no individual piece of equipment or device should exceed 83 dBA L_{max} at a distance of 25 feet during the allowable construction hours, and noise levels should not exceed 86 dBA L_{max} outside the property during the allowable hours. In addition to the City's construction noise thresholds, this impact also considers the effect temporary construction noise on the existing noise environment at the surrounding sensitive

receptors. Where noise from construction activities exceeds 60 dBA L_{eq} at residential land uses or 70 dBA L_{eq} at commercial land uses and exceeds the ambient noise environment by at least 5 dBA L_{eq} at noise-sensitive uses in the project vicinity for a period exceeding one year, the impact would be considered significant.

The nearest existing residential structures are located within 10 to 15 feet of the project's northwest boundary. The daytime ambient noise levels of these residences range from 54 to 62 dBA L_{eq}. Additional residential land uses are located 200 feet to the southwest, opposite the BART tracks and approximately 190 feet northeast of the project site, opposite Mission Boulevard. The residences located along the BART tracks and opposite Mission Boulevard have daytime ambient noise levels ranging from 63 to 68 dBA L_{eq}. Commercial land uses are located to the northwest of the project site within 5 feet of the project's boundary (daytime ambient levels range from 63 to 68 dBA L_{eq}), 50 to 100 feet southeast of the project site (daytime ambient levels range from 54 to 62 dBA L_{eq}), and 90 to 135 feet northeast of the project site, opposite Mission Boulevard (daytime ambient levels range from 63 to 68 dBA L_{eq}).

Construction activities generate considerable amounts of noise, especially during earth-moving activities when heavy equipment is used. The highest maximum noise levels generated by project construction would typically range from about 80 to 90 dBA L_{max} at a distance of 50 feet from the noise source (Table 9). Typical hourly average construction-generated noise levels for residential mixed-use developments are about 81 to 88 dBA L_{eq} measured at a distance of 50 feet from the center of the site during busy construction periods (e.g., earth moving equipment, impact tools, etc.), as shown in Table 10. Construction-generated noise levels drop off at a rate of about 6 dBA per doubling of the distance between the source and receptor. Shielding by buildings or terrain can provide an additional 5 to 10 dBA noise reduction at distant receptors.

Demolition of existing structures on the project site is expected to commence in mid-June 2017, and construction of the proposed project is expected to be completed by the end of June 2019. The construction schedule indicates that 24 months would be required for project construction. Construction activities would include demolition, excavation, grading, trenching, building construction, paving, and architectural coating. During each stage of construction, there would be a different mix of equipment operating, and noise levels would vary by stage and vary within stages, based on the amount of equipment in operation and the location at which the equipment is operating. Table 10 shows the average noise level ranges, by construction phase. As noted in the table, multiple phases of project construction would overlap, and the range of average noise levels shown in Table 10 range of levels possible during each phase. Once construction moves indoors, minimal noise would be generated at off-site locations.

TABLE 9 Construction Equipment, 50-foot Noise Emission Limits

Equipment Category	L_{max} Level (dBA)[1,2]	Impact/Continuous
Arc Welder	73	Continuous
Auger Drill Rig	85	Continuous
Backhoe	80	Continuous
Bar Bender	80	Continuous
Boring Jack Power Unit	80	Continuous
Chain Saw	85	Continuous
Compressor[3]	70	Continuous
Compressor (other)	80	Continuous
Concrete Mixer	85	Continuous
Concrete Pump	82	Continuous
Concrete Saw	90	Continuous
Concrete Vibrator	80	Continuous
Crane	85	Continuous
Dozer	85	Continuous
Excavator	85	Continuous
Front End Loader	80	Continuous
Generator	82	Continuous
Generator (25 KVA or less)	70	Continuous
Gradall	85	Continuous
Grader	85	Continuous
Grinder Saw	85	Continuous
Horizontal Boring Hydro Jack	80	Continuous
Hydra Break Ram	90	Impact
Impact Pile Driver	105	Impact
Insitu Soil Sampling Rig	84	Continuous
Jackhammer	85	Impact
Mounted Impact Hammer (hoe ram)	90	Impact
Paver	85	Continuous
Pneumatic Tools	85	Continuous
Pumps	77	Continuous
Rock Drill	85	Continuous
Scraper	85	Continuous
Slurry Trenching Machine	82	Continuous
Soil Mix Drill Rig	80	Continuous
Street Sweeper	80	Continuous
Tractor	84	Continuous
Truck (dump, delivery)	84	Continuous
Vacuum Excavator Truck (vac-truck)	85	Continuous
Vibratory Compactor	80	Continuous
Vibratory Pile Driver	95	Continuous
All other equipment with engines larger than 5 HP	85	Continuous

Notes: [1] Measured at 50 feet from the construction equipment, with a "slow" (1 sec.) time constant.

[2] Noise limits apply to total noise emitted from equipment and associated components operating at full power while engaged in its intended operation.

[3]Portable Air Compressor rated at 75 cfm or greater and that operates at greater than 50 psi.

TABLE 10 Typical Ranges of Construction Noise Levels at 50 Feet, L_{eq} (dBA)

	Domestic Housing		Office Building, Hotel, Hospital, School, Public Works		Industrial Parking Garage, Religious Amusement & Recreations, Store, Service Station		Public Works Roads & Highways, Sewers, and Trenches	
	I	II	I	II	I	II	I	II
Ground Clearing	83	83	84	84	84	83	84	84
Excavation	88	75	89	79	89	71	88	78
Foundations	81	81	78	78	77	77	88	88
Erection	81	65	87	75	84	72	79	78
Finishing	88	72	89	75	89	74	84	84

I - All pertinent equipment present at site.
II - Minimum required equipment present at site.

Source: U.S.E.P.A., Legal Compilation on Noise, Vol. 1, p. 2-104, 1973.

As shown in Table 11, noise levels would exceed 60 dBA L_{eq} at the nearby residences and would exceed 70 dBA L_{eq} at the nearby commercial uses and exceed ambient conditions by more than 5 dBA L_{eq} throughout the project construction. Noise levels shown in Table 11 also indicate that the City's 86 dBA L_{max} threshold could potentially be exceeded outside the property line of the construction site. Since construction noise for the proposed project is expected to exceed 60 dBA L_{eq} and exceed ambient levels at the nearby residences by more than 5 dBA L_{eq} for a period of more than one year, as well as expose noise-sensitive receptors to construction noise exceeding the City's thresholds, this would potentially cause disruption at the surrounding sensitive land uses.

Reasonable regulation of the hours of construction, as well as regulation of the arrival and operation of heavy equipment and the delivery of construction material, are necessary to protect the health and safety of persons, promote the general welfare of the community, and maintain the quality of life.

Construction activities would be conducted in accordance with the provisions of the City's General Plan and Municipal Code, which limits temporary construction work between the hours of 7:00 a.m. and 7:00 p.m. Monday through Saturday and 10:00 a.m. to 6:00 p.m. on Sundays and holidays. The following mitigation measure from the Mission Boulevard Corridor EIR would apply to the proposed project, which include a Construction Noise Logistics Plan. Implementation of Mitigation Measure Noise-5 would reduce construction levels emanating from the site below the City's thresholds, and minimize disruption and annoyance at existing noise-sensitive receptors at the project vicinity.

Noise-5: In order to maintain compliance with Hayward Noise Ordinance §4-1.03.4, development that includes demolition and/or construction activity exceeding 86 dBA outside of the property plane shall be carried out in accordance with a Construction

Noise Logistics Plan approved by the Development Services Director or Designee pursuant to a Conditional Noise Permit authorized in accordance with Hayward Noise Ordinance §4-1.04.

A Construction Noise Logistics Plan shall specify the hours of construction, noise and vibration minimization measures, posting or notification of the method of construction and schedules, and designation of a noise disturbance coordinator who would respond to neighborhood complaints. Additionally, a Construction Noise Logistics Plan shall include measures required to be in place prior to the start of construction, and implemented during construction to reduce noise impacts on neighboring residents and other uses. A typical construction noise logistics plan would include, but not be limited to, the following measures to reduce construction noise levels as low as practical:

- Utilize 'quite' models of air compressors and other stationary noise sources where technology exists;

- Equip all internal combustion engine-driven equipment with mufflers, which are in good condition and appropriate for the equipment;

- Locate all stationary noise-generating equipment, such as air compressors and portable power generators, as far away as possible from adjacent land uses;

- Locate staging areas and construction material areas as far away as possible from adjacent land uses;

- Prohibit all unnecessary idling of internal combustion engines;

- If impact pile driving is proposed, multiple-pile drivers shall be considered to expedite construction. Although noise levels generated by multiple pile drivers would be higher than the noise generated by a single pile driver, the total duration of pile driving activities would be reduced (*not applicable*);

- If impact pile driving is proposed, temporary noise control blanket barriers shall shroud pile drivers or be erected in a manner to shield the adjacent land uses. Such noise control blanket barriers can be rented and quickly erected (*not applicable*);

- If impact pile driving is proposed, foundation pile holes shall be predrilled to minimize the number of impacts required to seat the pile Predrilling foundation pile holes is a standard construction noise control technique. Pre-drilling reduces the number of blows required to seat the pile. Notify all adjacent land uses of the construction schedule in writing (*not applicable*);

- Designate a "disturbance coordinator" who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint (e.g., starting too early, bad muffler,

etc.) and will require that reasonable measures warranted to correct the problem be implemented. Conspicuously post a telephone number for the disturbance coordinator at the construction site and include it in the notice sent to neighbors regarding the construction schedule.

As stated in the Mission Boulevard Corridor EIR, the potential short-term noise impacts associated with construction would be reduced through the implementation of existing City General Plan policy and regulations, which provide reasonable noise standards for construction periods and acceptable noise levels. Mitigation Measure Noise-5 provides a listing of supplemental measures to be incorporated into the construction plan and implemented into all phases of construction activity to minimize the exposure of neighboring properties. In combination with the limitations on hours as set forth in the General Plan and Municipal Code, these measures would reduce construction noise impacts to a less-than-significant level.

Mitigation Measure 5: No further mitigation required.

TABLE 11 Estimated Construction Noise Levels at the Nearby Residences

Phase	Time Duration	Construction Equipment (Quantity)	Calculated Hourly Average L_{eq} at Residence, dBA					
			NW Res (10ft)	SW Res (200ft)	NE Res (190ft)	NW Comm (5ft)	SE Comm (50ft)	NE Comm (90ft)
Demolition	6/14/2017-7/11/2017	Concrete/Industrial Saw (1) Excavator (1) Tractor/Loader/Backhoe (1) Rubber-Tired Dozer (2)	100	79	80	110	86	88
Grading/ Excavation	7/12/2017-10/3/2017	Grader (1) Scraper (2) Tractor/Loader/Backhoe (2)	101	80	82	111	87	89
Trenching	10/4/2017-11/28/2017	Excavator (2) Tractor/Loader/Backhoe (1) Trencher (1)	96	74	76	705	82	83
Building-Exterior (hotel)	11/13/2017-4/27/2018	Crane (2) Forklift (3) Tractor/Loader/Backhoe (5)	102-104[b]	80-83[b]	82-85[b]	112-114[b]	88-90[b]	89-92[b]
Building-Exterior (residential)	11/13/2017-8/22/2018	Forklift (2) Pump (1) Tractor/Loader/Backhoe (2)	98-103[a]	77-82[a]	79-83[a]	108-113[a]	84-89[a]	86-91[a]
Building-Interior/ Architectural Coating (hotel)	2/5/2018-12/7/2018	Aerial Lift (1) Air Compressor (1) Plate Compactor (1) Pressure Washer (1)	93-105[c]	71-84[c]	73-85[c]	102-115[c]	79-91[c]	80-93[c]
Building-Interior/ Architectural Coating (residential)	2/23/2018-6/3/2019	Air Compressor (2) Plate Compactor (1) Pressure Washer (1)	94-100[d]	72-79[d]	74-81[d]	103-110[d]	80-86[d]	81-88[d]
Paving (hotel)	4/28/2018-7/20/2018	Cement & Mortar Mixer (1) Paving Equipment (1) Roller (1) Tractor/Loader/Backhoe (1)	99-104[e]	78-83[e]	80-84[e]	109-114[e]	85-90[e]	87-92[e]
Paving (residential)	6/3/2019-6/28/2019	Paver (2) Roller (2) Skid Steer Loader (2) Tractor/Loader/Backhoe (2)	100	78	80	110	86	87

[a] The range of levels for building exterior (hotel) reflects the overlap with the building exterior (residential) phase and the trenching phases.

[b] The range of levels for building exterior (residential) reflects the overlap with the building exterior (hotel) phase.
[c] The range of levels for building interior (hotel) reflects overlap with the building interior (residential), the building exterior (hotel), and the building exterior (residential) phases.
[d] The range of levels for building interior (residential) reflects overlap with the building interior (hotel) phase.
[e] The range of levels for paving (hotel) reflects overlap with the building exterior (residential), the building interior (hotel), and the building interior (residential) phases.

Impact 6: **Public and Private Airport Noise.** The proposed project would be located outside the airport influence area of the Hayward Executive Airport and the Oakland International Airport. Excessive noise exposure to noise-sensitive receptors in the project area would not result. No private airstrips are located within 2 miles of the project site. **No impact would result under this criterion.**

Hayward Executive Airport is a city-owned, public-use airport located approximately 2.1 miles west of the project site, and Oakland International Airport is a public-use airport owned by the Port of Oakland that is located approximately 8.5 miles northwest of the project site. Although aircraft-related noise could occasionally be audible at the project site, noise from aircraft would does not substantially increase ambient noise levels due to traffic or BART. The project site lies outside the airport influence area of both airports, as established in the Hayward Executive Airport Land Use Compatibility Plan of 2012 and the Oakland International Airport Land Use Compatibility Plan of 2010. Exterior and interior noise levels resulting from aircraft would be compatible with the proposed project. No impact would result under this criterion.

APPENDIX H

Traffic Impact Analysis

TRANSPORTATION IMPACT ANALYSIS

HAYWARD MISSION CROSSINGS

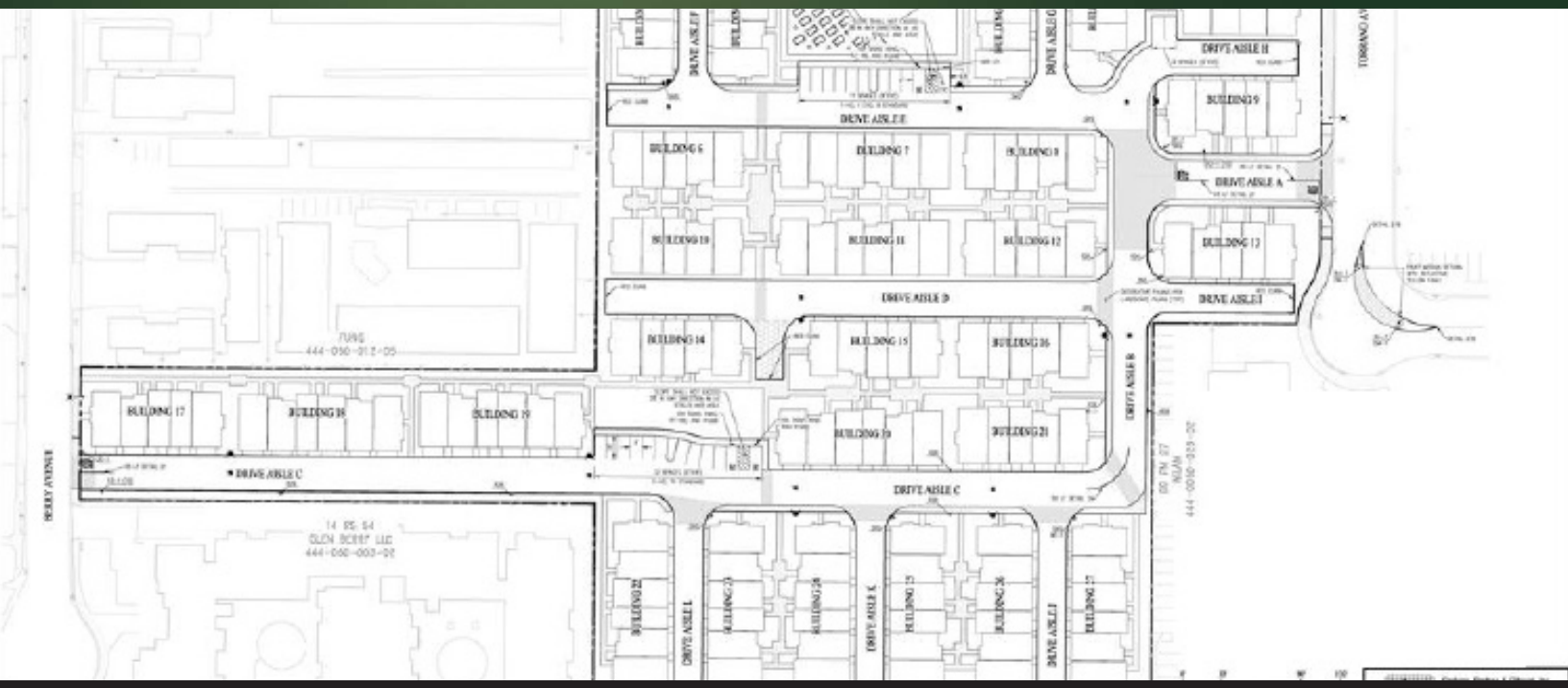
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Transportation Impact Analysis - Final Report

Hayward Mission Crossings

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April 2017



EXECUTIVE SUMMARY

This report presents the findings, conclusions and transportation impact analysis conducted by Kittelson & Associates for the Hayward Mission Crossings project located at 25501 Mission Boulevard (hereinafter referred to as "the Project"). The proposed Project site is located in the City of Hayward (City), on the northwest corner of the intersection of Mission Boulevard & Torrano Avenue-North.

The Applicant is proposing to convert a vacant lot that previously housed an automobile dealership into a mixed use development consisting of residential and hotel with retail and coffee shop. The Project would consist of 140 residential condominium units and a 93-room hotel with 5,725 square feet (sf) of specialty retail space and a 1,500-sf coffee shop. Access to the proposed hotel will be provided via a one-way slip lane on Mission Boulevard (right-turn inbound-only driveway in the northeast corner of the Project site and right-turn outbound-only driveway in the southeast corner of the Project site) and a full access driveway on Torrano Avenue. Access to the residential portion of the Project would be provided via a full access driveway on Torrano Avenue and a full access driveway on Berry Avenue. The hotel portion of the Project would consist of 83 parking spaces and the residential portion of the Project would consist of 305 parking spaces.

The Project is expected to generate approximately 2,448 net daily trips, with 206 trips in the AM peak hour and 175 trips in the PM peak hour.

Land uses with higher trip generation were included in the Project site as part of the Form-Based Code for the Mission Boulevard Specific Plan that was cleared environmentally at a Programmatic Level in 2012. Now that this Application includes more focused land uses, this report evaluates the project for potential impacts and mitigations at a more detailed Project level associated with the Project's interaction with the adjacent roadway network. This report considers a number of scenarios, including Existing Conditions, Background 2020, and Cumulative 2035 conditions, and analyzed seven study intersections.

SUMMARY OF FINDINGS

Minor circulation concerns were identified at the proposed Project site that can be addressed with some traffic control, including stop or yield signs. The traffic generated by the proposed Project does not result in any significant impacts at the study intersections around the project vicinity and thus, no mitigation measures have been proposed. Therefore based on the City of Hayward impact criteria, the project is expected to have a less-than-significant impact all study intersections under all analyzed scenarios. The unsignalized intersection of Dollar Street and Harder Road meets traffic signal warrants for all scenarios.

Traffic calming measures have been proposed on Torrano Avenue, Dollar Street and Berry Avenue to improve safety and account for the new Project driveways.

The Proposed Project is not expected to generate a high number of bicycle, pedestrian and transit trips, and therefore is not expected to significantly impact existing and future bicycle and pedestrian and transit facilities in the vicinity of the project. Therefore the impact to pedestrian, bicycle and transit facilities is less-than-significant. Onsite and offsite facilities for bicycle and pedestrian modes have been incorporated into the Project design.

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Appendix N: Loading Truck, Waste Disposal and EVA Truck Turning Templates

1 EXISTING CONDITIONS

1.1 SETTING

The proposed Project—described in detail in Section 2 — is located in the City of Hayward, on the northwest corner of the intersection of Mission Boulevard & Torrano Avenue-North (see Figure 1 for the location of the Project site). This transportation impact analysis is therefore subject to the regulations and standards currently in place in the City of Hayward. These standards are outlined in the *Hayward 2040 General Plan – Mobility Element* (2014) and the Hayward Mission Boulevard Corridor Form-Based Code (2014) as summarized below.

1.1.1 Significance Criteria

Goal 4 Local Circulation-M-4.3 of the City of Hayward's 2040 General Plan requires intersections to maintain a peak-hour level of service of E or better for signalized intersections. M-4.3 describes this as follows: The City shall maintain a minimum Level of Service E at signalized intersections during the peak commute periods except when a LOS F may be acceptable due to costs of mitigation or when there would be other unacceptable impacts, such as right-of-way acquisition or degradation of the pedestrian environment due to increased crossing distances or unacceptable crossing delays.

The following thresholds of significance were developed based on the CEQA guidelines for establishing thresholds of significance and the applicable standards and policies of the City of Hayward.

1.1.1.1 Signalized Intersections

The proposed project would have a significant impact on traffic and circulation of signalized intersections if it would degrade the AM or PM peak hour from an acceptable LOS E or better under the No Project scenario to an unacceptable LOS F under the Plus Project scenario. The exception to this criterion is when LOS F is determined by the City of Hayward as acceptable due to right-of-way constraints or when there would be unacceptable impacts to other modes of travel, such as bicycle, pedestrian or transit.[1]

1.1.1.2 Unsignalized Intersections

At unsignalized intersections, the proposed project's impact is based on LOS and delay, and whether any of the following are met:

[1] Hayward 2040 General Plan, July 2014, Policy Document: Part 3 Mobility Element, Page 3-81

- Traffic signal warrant,
- Pedestrian signal warrant, or
- All-way stop warrant

Note that solely triggering a warrant does not constitute a significant impact, but the City of Hayward will at its discretion require or not require a signal be installed, where warranted.

1.1.1.3 Intersections Operating at LOS F

Regardless of intersection control, per the latest City of Hayward Interim Traffic Study Guidelines, dated March 2017, the proposed project would have a significant impact on traffic and circulation of an intersection operating at LOS F under an Existing or No Project scenario if the addition of project traffic results in an increase of 5.0 seconds or more in the intersection's average control delay.

1.1.2 Level of Service Definitions

In this report, LOS is based on the Highway Capacity Manual (HCM) 2000 definitions, included as

Table 1 (for signalized intersections) and Table 2 (for unsignalized intersections) for ease of reference. Signal timings at signalized study intersections obtained from City of Hayward showed coordination along Mission Boulevard. Thus, the strategy used in the traffic operations was to optimize the splits at the intersections and maintain the cycle length to preserve the coordination in the Synchro software. Signal timing sheets are included as Appendix A.

Table 1: Level of Service Criteria – Signalized Intersections

Level of Service (LOS)	Average Delay (seconds/ vehicle)	Description
A	< 10	LOS A represents free-flow travel with an excellent level of comfort and convenience and the freedom to maneuver.
B	> 10 and < 20	LOS B has stable operating conditions, but the presence of other road users causes a noticeable, though slight, reduction in comfort, convenience, and maneuvering freedom.
C	> 20 and < 35	LOS C has stable operating conditions, but the operation of individual users is substantially affected by the interaction with others in the traffic stream.
D	> 35 and < 55	LOS D represents high-density, but stable flow. Users experience severe restriction in speed and freedom to maneuver, with poor levels of comfort and convenience.
E	> 55 and < 80	LOS E represents operating conditions at or near capacity. Speeds are reduced to a low but relatively uniform value. Freedom to maneuver is difficult with users experiencing frustration and poor comfort and convenience. Unstable operation is frequent, and minor disturbances in traffic flow can cause breakdown conditions.
F	> 80	LOS F is used to define forced or breakdown conditions. This condition exists wherever the volume of traffic exceeds the capacity of the roadway. Long queues can form behind these bottleneck points with queued traffic traveling in a stop-and-go fashion.

Source: Transportation Research Board, Highway Capacity Manual, Washington, D.C., 2000.

Table 2: Level of Service Criteria – Unsignalized Intersections

Level of Service (LOS	Average Delay (seconds / vehicle)	Description
A	< 10	Little or no delay
B	> 10 and < 15	Short traffic delay
C	> 15 and < 25	Average traffic delays
D	> 25 and < 35	Long traffic delays
E	> 35 and < 50	Very long traffic delays
F	> 50	Extreme delays potentially affecting other traffic movements in the intersection

Source: Transportation Research Board, Highway Capacity Manual, Washington, D.C., 2000.

1.1.3 Study Intersections

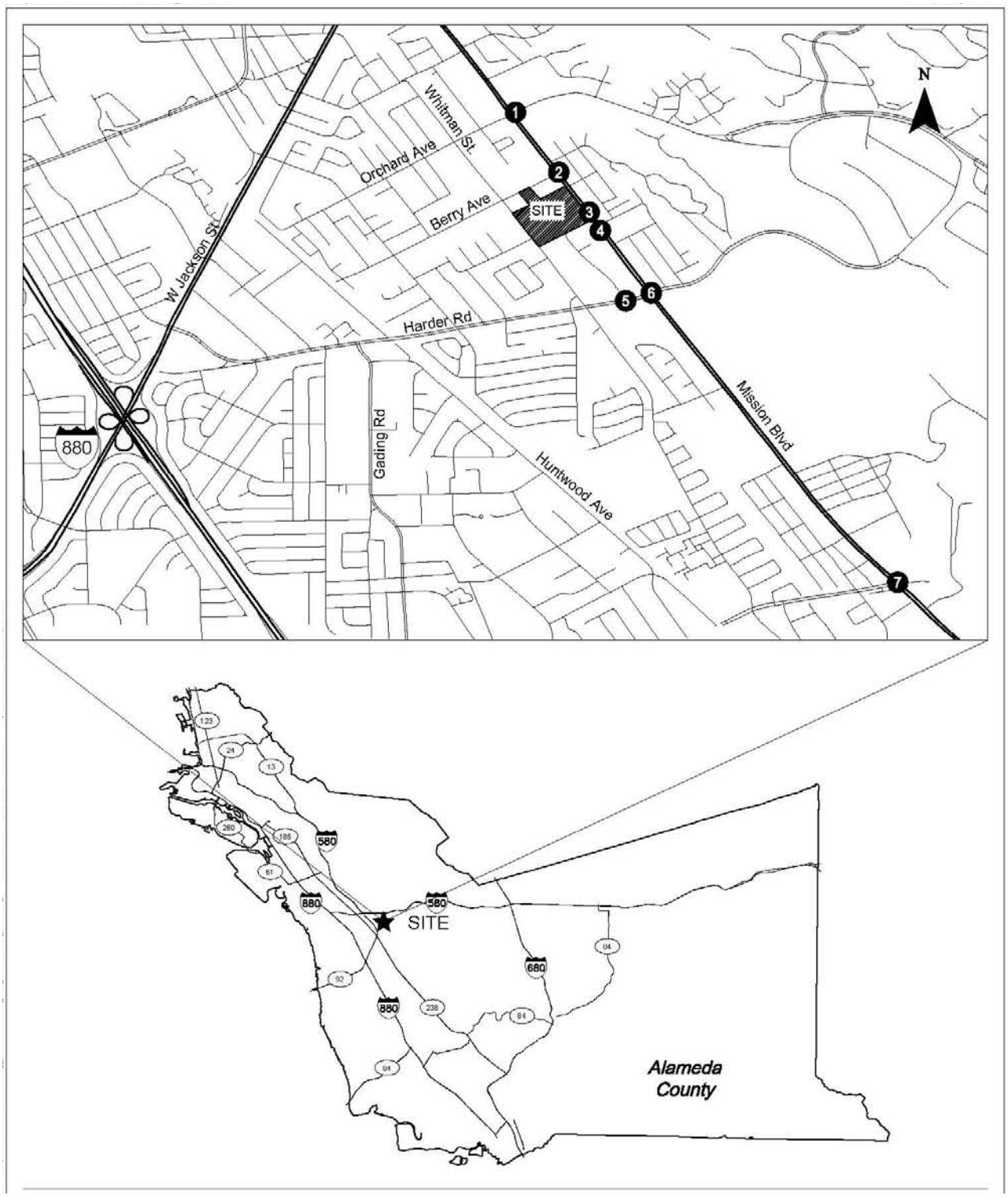
A total of seven study intersections (listed in Table 3) were selected for the purposes of this analysis. These study intersections were selected based on discussions with City staff.

Table 3: Study Intersections

Intersection #	Street Name		Jurisdiction	Control[1]	LOS Standard
	North-South	East-West			
1	Mission Boulevard	Orchard Avenue/Carlos Bee Boulevard	Hayward	Signal	E
2	Mission Boulevard	Berry Avenue	Hayward	Signal	E
3	Mission Boulevard	Torrano Avenue-North	Hayward	OWSC	E
4	Mission Boulevard	Torrano Avenue-South	Hayward	TWSC	E
5	Dollar Street	Harder Road	Hayward	TWSC	E
6	Mission Boulevard	Harder Road	Hayward	Signal	E
7	Mission Boulevard	Tennyson Road	Hayward	Signal	E

[1] OWSC = One-way (minor-street) stop control | TWSC = Two-way (minor-street) stop control

Figure 1: Project Location and Study Intersections



1.2 NETWORK

1.2.1 Roadways

Mission Boulevard is a north-south four-lane arterial with a median located adjacent to the east side of the Project site. The right-turn inbound-only and right-turn outbound-only slip lane driveways serving the hotel portion of the Project are located on Mission Boulevard. In the vicinity of the proposed project, Mission Boulevard has a posted speed limit of 35 mph.

Orchard Avenue/Carlos Bee Boulevard is an east-west direction road with a median and is located north of the Project site. Orchard Avenue is located on the west side of Mission Boulevard and Carlos Bee Boulevard is located on the east side of Mission Boulevard. Orchard Avenue is a four-lane local street and Carlos Bee Boulevard is a four-lane collector street. In the vicinity of the proposed project, Orchard Avenue has a posted speed limit of 25 mph and Carlos Bee Boulevard has a posted speed limit of 30 mph. East of Mission Boulevard, Carlos Bee Boulevard provides access to the Cal State East Bay College.

Berry Avenue is an east-west two-lane local street located north of the Project site and intersects with Mission Boulevard at a signalized intersection. One of the full access driveways serving the residential portion of the Project is located on Berry Avenue. In the vicinity of the proposed project, Berry Avenue has a speed limit of 25 mph.

Torrano Avenue is an east-west two-lane local street that is offset at Mission Boulevard with the west leg located approximately 135 feet north of the east leg. One of the full access driveways serving the residential portion of the Project and one of the full access driveways serving the hotel portion of the Project are located on the west leg of Torrano Avenue. The west leg of Torrano Avenue turns 90 degrees and becomes Dollar Street. In the vicinity of the proposed project, Torrano Avenue has a posted speed limit of 25 mph.

Dollar Street is a north-south two-lane local street located west of the Project site and intersects with Harder Road. Dollar Street turns 90 degrees at the north end and turns into the west leg of Torrano Avenue. In the vicinity of the proposed project, Dollar Street has a posted speed limit of 25 mph.

Harder Road is an east-west four-lane collector with a median and is located south of the Project site. Harder Road intersects with Dollar Street and Mission Boulevard. In the vicinity of the proposed project, Harder Road has a posted speed limit of 35 mph. East of Mission Boulevard, Harder Road provides access to the Cal State East Bay College.

Tennyson Road is an east-west four-lane arterial with a median and is located south of the Project site. Tennyson Road consists of an interchange to I-880 and intersects with Mission Boulevard. In the vicinity of the proposed project, Tennyson Road has a posted speed limit of 35 mph with 25 mph in the school zone.

1.2.2 Transit Service

AC Transit provides local bus transit service near the proposed project site. AC Transit stops are located nearby the project within easy walking distance on the west side of Mission Boulevard just south of Torrano Avenue-North (for south bound travel), and on the east side of Mission Boulevard just north of Torrano Avenue-South for north bound travel. Marked cross-walks provide pedestrian crossings from the project site to the transit stops. Line 22 is scheduled at 30-minute headways between 6:26 AM and 12:18 AM on weekdays. The route connects the Hayward BART station to South Hayward BART station and travels along Mission Boulevard and Tennyson Road in the study area. Line 99 is scheduled at 20-minute headways between 5:00 AM and 1:00 AM on weekdays. The route connects the Hayward BART station to Fremont BART station and travels along Mission Boulevard in the study area. Line 801 is an overnight service scheduled at 60-minute headways between 11:43 PM and 6:20 AM on weekdays. The route connects Fremont to Oakland and travels along Mission Boulevard in the study area. Figure 2 provides a map of the transit lines.

Figure 2: Transit Routes



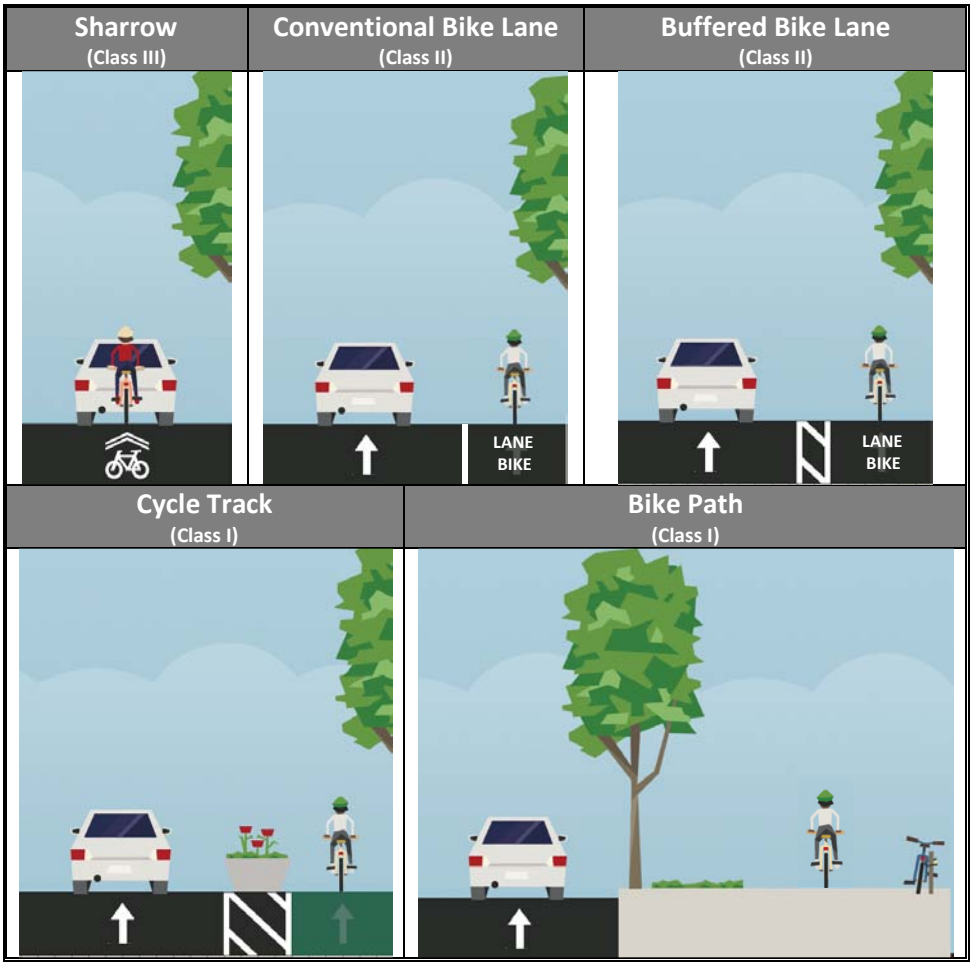
1.2.3 Pedestrian and Bicycle

Crosswalks and actuated pedestrian signals are provided at all signalized study intersections. The intersection of Mission Boulevard and Torrano Avenue-North consists of a ladder crosswalk on the west side of the intersection. The intersection of Mission Boulevard and Torrano Avenue-South consists of a ladder crosswalk on the north side of the intersection (with Rapid Flashing Beacons to slow traffic on Mission Boulevard when pedestrians cross) and on the east side of the intersection. The intersection of Dollar Street and Harder Road consists of a crosswalk on the north and south sides of the intersection. Sidewalks are present in both directions at all study intersections. Since the intersection Mission Boulevard and Torrano Avenue-South is uncontrolled, and is a key access and crossing point for the Project site, safety for pedestrian and bicycle modes is enhanced with ladder crosswalks at all approaches and a Rapid Flashing Beacon on the north side. These improvements were part of the Mission Boulevard Corridor Phase 1 Improvement Project.

According to the latest update to the City of Hayward General Plan, Orchard Avenue/Carlos Bee Boulevard is classified as a Class III bicycle route east of Soto Road. There are no sharrows on the pavement, but signage urges bicyclists and drivers to “share the road”. Harder Road and Tennyson Road consist of Class II bicycle lanes.

Figure 3 serves as a quick reference for the classification of bicycle facilities used in this report.

Figure 3: Bicycle Facilities Classification



Source: Kittelson & Associates, Inc., based on NACTO Urban Bikeway Design Guide (April 2011) and Streetmix.net graphics.

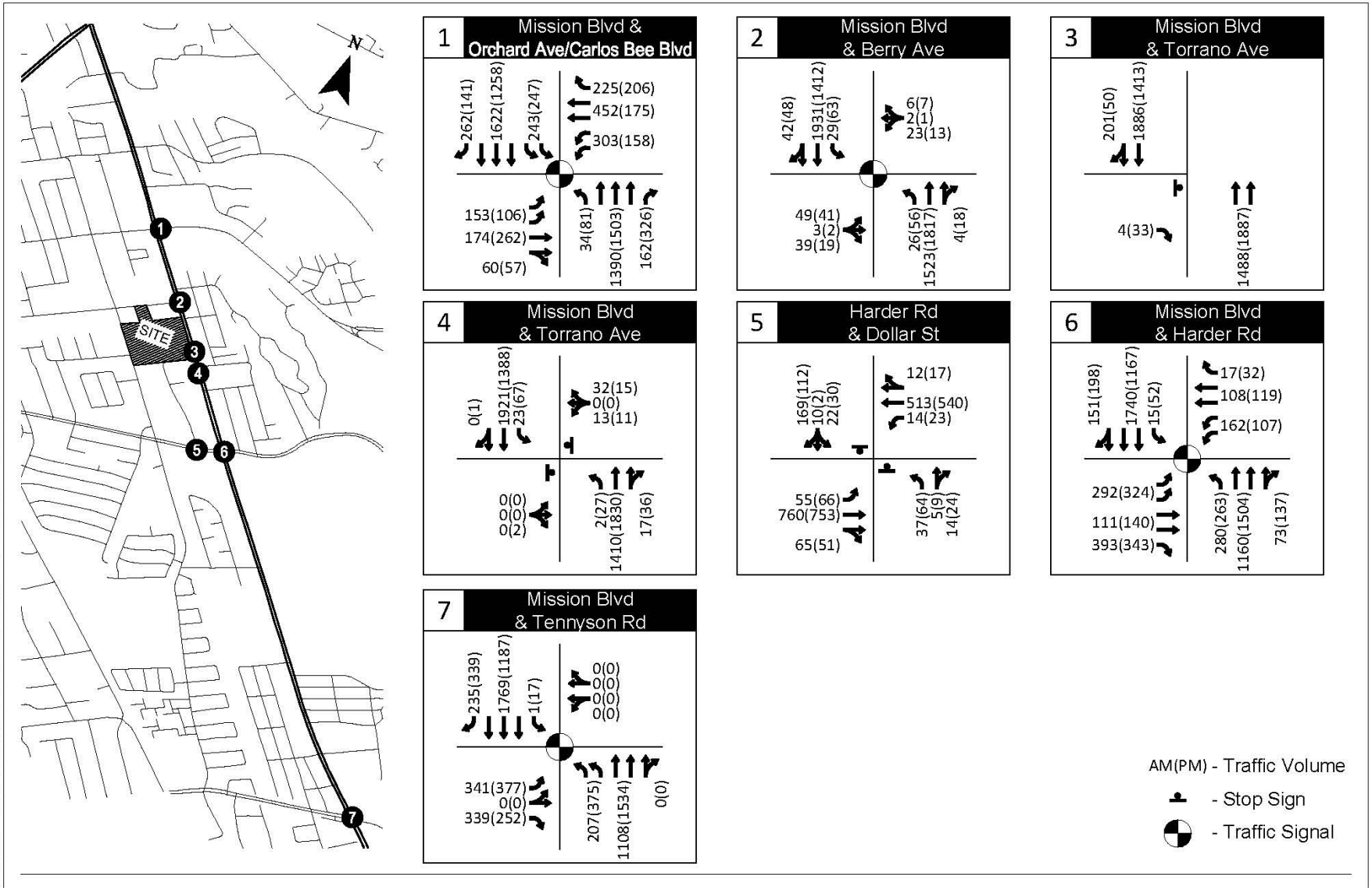
1.3 DEMAND

1.3.1 Automobile Traffic Volumes

Automobile turning movement counts at the study intersections were collected in the field between 7-9 AM and between 4-6 PM on Thursday, September 8, 2016. The weather conditions were clear and no rain or accidents were observed.

Figure 4 shows the existing automobile peak hour volumes at the study intersections. Intersection control (i.e., signalized or stop-controlled) and lane geometries are also shown in the figure. Appendix B contains the field-collected count sheets.

Figure 4: Automobile Peak Hour Volumes, Existing Conditions



1.3.2 Pedestrian and Bicycle Volumes

Pedestrian and bicycle volumes were collected at the study intersections as part of the data collection effort. Table 4 and Table 5 present the pedestrian and bicycle volume data for the AM and PM peak hours, respectively.

Table 4: Pedestrian and Bicycle Volumes, Existing Conditions, AM Peak Hour

	Street Name		Pedestrian Crossings				Southbound Bicycles			Westbound Bicycles			Northbound Bicycles			Eastbound Bicycles		
#	North-South	East-West	S	W	N	E	SBL	SBT	SBR	WBL	WBT	WBR	NBL	NBT	NBR	EBL	EBT	EBR
1	Mission Boulevard	Orchard Avenue/ Carlos Bee Boulevard	3	0	8	6	0	0	0	0	0	1	0	1	0	0	0	0
2	Mission Boulevard	Berry Avenue	3	4	5	8	0	1	0	0	0	0	0	0	0	0	0	0
3	Mission Boulevard	Torrano Avenue-North	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
4	Mission Boulevard	Torrano Avenue-South	0	10	8	5	0	3	0	0	0	0	0	0	0	0	0	0
5	Dollar Street	Harder Road	10	2	6	0	0	0	1	0	0	0	0	0	0	0	0	0
6	Mission Boulevard	Harder Road	2	5	4	4	0	1	0	0	0	0	0	0	0	0	0	0
7	Mission Boulevard	Tennyson Road	5	2	5	0	0	0	0	0	0	0	0	0	0	0	0	0

Data Source: Quality Counts manual turning movement counts (September 2016).

Table 5: Pedestrian and Bicycle Volumes, Existing Conditions, PM Peak Hour

#	Street Name		Pedestrian Crossings				Southbound Bicycles			Westbound Bicycles			Northbound Bicycles			Eastbound Bicycles		
	North-South	East-West	S	W	N	E	SBL	SBT	SBR	WBL	WBT	WBR	NBL	NBT	NBR	EBL	EBT	EBR
1	Mission Boulevard	Orchard Avenue/ Carlos Bee Boulevard	7	15	9	4	0	1	0	0	0	0	0	0	0	0	0	0
2	Mission Boulevard	Berry Avenue	7	15	3	7	0	1	0	0	0	0	0	2	0	0	1	0
3	Mission Boulevard	Torrano Avenue-North	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Mission Boulevard	Torrano Avenue-South	0	9	3	11	0	2	0	0	0	0	0	0	0	0	0	0
5	Dollar Street	Harder Road	9	1	4	0	0	0	0	0	0	0	1	0	0	1	1	0
6	Mission Boulevard	Harder Road	2	13	10	3	0	2	0	0	0	0	0	0	0	0	0	1
7	Mission Boulevard	Tennyson Road	7	5	2	0	0	0	0	0	0	0	0	1	0	1	0	1

Data Source: Quality Counts manual turning movement counts (September 2016).

1.4 PERFORMANCE

1.4.1 Traffic Signal Warrants

Traffic signal warrants are standards that provide guidelines in the determination of the need for a traffic signal. A traffic signal should not be installed if no warrants are met, since the installation of traffic signals may increase delays for the majority of through traffic and may increase the potential for accidents.

As stated in the FHWA/Caltrans 2014 California Manual of Uniform Traffic Control Devices (CA-MUTCD), "An engineering study of traffic conditions, pedestrian characteristics, and physical characteristics of the location shall be performed to determine whether installation of a traffic control signal is justified at a particular location. The investigation of the need for a traffic control signal shall include an analysis of the applicable factors contained in the following traffic signal warrants and other factors related to existing operation and safety at the study location:

- Warrant 1, Eight-Hour Vehicular Volume.
- Warrant 2, Four-Hour Vehicular Volume.
- Warrant 3, Peak Hour.
- Warrant 4, Pedestrian Volume.
- Warrant 5, School Crossing.
- Warrant 6, Coordinated Signal System.
- Warrant 7, Crash Experience.
- Warrant 8, Roadway Network.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

This traffic impact analysis did not evaluate the full panoply of warrants for traffic signals, but instead focused on the peak hour warrant. The peak hour warrant is being used in this study as an "indicator" of the likelihood of an existing or future unsignalized intersection warranting a traffic signal. Intersections that fail to exceed the peak hour warrant are considered (for the purposes of this impact analysis) to be unlikely to meet one or more of the other signal warrants (such as the 4-hour or 8-hour warrants). However, this does not mean that a signal is definitely unwarranted. A signal may be warranted by other criteria, some of which cannot be known until the intersection is constructed and operational. This peak hour analysis is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction.

As discussed in Section 1.1.1.2, the proposed project's impact at unsignalized intersections is based on whether any of the following are met:

- Traffic signal warrant,
- Pedestrian signal warrant, or
- All-way stop warrant

Note that solely triggering a warrant does not constitute a significant impact, but the City of Hayward will at its discretion require or not require a signal be installed, where warranted.

Regardless of intersection control, per the latest City of Hayward Interim Traffic Study Guidelines, the proposed project would have a significant impact on traffic and circulation of an intersection operating at LOS F under an Existing or No Project scenario if the addition of project traffic results in an increase of 5.0 seconds or more to the intersection's average control delay. Unsignalized intersections were evaluated using the Peak Hour Volume Warrant (Warrant No. 3) in the CA-MUTCD. Even if the Peak Hour Volume Warrant is met, a more detailed signal warrant study is recommended before a signal is installed. The more detailed study should consider volumes during the daily peak hours of roadway traffic, pedestrian traffic, and collision histories. Table 6 presents a summary of the traffic signal warrants for the Existing Conditions scenario. Appendix D contains the traffic signal warrant worksheets.

As shown in Table 6, peak hour signal warrants are met at the Dollar Street and Harder Road intersection during both peak hours. Although the signal warrant is met, City staff may decide that the installation of a signal is not appropriate at this intersection due to its close proximity to the adjacent intersection of Mission Boulevard and Harder Road.

Table 6: Traffic Signal Peak Hour Warrants, Existing Conditions

#	Intersection	Control	Peak Hour	Existing
3	Mission Boulevard SW & Torrano Avenue-North	OWSC	AM	Not Met
			PM	Not Met
4	Mission Boulevard & Torrano Avenue-South	TWSC	AM	Not Met
			PM	Not Met
5	Dollar Street & Harder Road	TWSC	AM	**Met**
			PM	**Met**

Based on California MUTCD (2014) Peak Hour Warrant
bold signifies that the warrant is met
Source: Kittelson & Associates, Inc. 2017

1.4.2 Automobile Level of Service

Levels of service (LOS) at the study intersections were evaluated based on the 2000 Highway Capacity Manual methodology, as implemented in the Synchro 8 software package. LOS analysis was performed for the AM and PM peak hours, using traffic counts and peak hour factors collected in the field. Table 7 provides a summary of the automobile level of service for Existing Conditions for all study intersections. Appendix E contains the LOS worksheets at all the study intersections.

As shown in Table 7, one intersection reaches LOS F for the worst approach.

- The westbound approach (worst approach) of Intersection 4 operates at LOS F during the PM peak hour. However, the intersection is an unsignalized intersection, therefore, the LOS threshold does not apply.

All other study intersections operate at LOS D or better during both peak hours.

Table 7: Automobile Level of Service, Existing Conditions

#	Intersection	Control	Peak Hour	Existing	
				Delay (s/veh)	LOS
1	Mission Boulevard & Orchard Avenue/ Carlos Bee Boulevard	Signalized	AM	38.4	D
			PM	34.0	C
2	Mission Boulevard & Berry Avenue	Signalized	AM	12.5	B
			PM	12.7	B
3	Mission Boulevard & Torrano Avenue-North [a]	OWSC	AM	0.0(11.2)	A(B)
			PM	0.1(9.2)	A(A)
4	Mission Boulevard & Torrano Avenue-South [b]	TWSC	AM	0.5(29.0)	A(D)
			PM	**1.1(71.4)**	**A(F)**
5	Dollar Street & Harder Road [c][d]	TWSC	AM	**3.6(33.7)**	**A(D)**
			PM	**3.5(30.3)**	**A(D)**
6	Mission Boulevard & Harder Road	Signalized	AM	46.7	D
			PM	48.7	D
7	Mission Boulevard & Tennyson Road	Signalized	AM	26.7	C
			PM	29.9	C

LOS based on HCM 2000

bold signifies LOS worse than the target and/or that signal warrants are met

LOS and Control delays for unsignalized intersections are presented for average and (worst approach)

[a] The worst delay at this intersection was reported for the eastbound approach.

[b] The worst delay at this intersection was reported for the westbound approach. No Project trips are added to the westbound approach.

[c] The worst delay at this intersection was reported for the northbound approach. No Project trips are added to the northbound approach.

[d] Peak hour signal warrants are met at this intersection during both peak hours, however, City staff may decide that the installation of a signal is not appropriate at this intersection due to its close proximity to adjacent Intersection 6 (Mission Boulevard & Harder Road).

Source: Kittelson & Associates, Inc. 2017

1.4.3 Queue Storage

The 95th percentile queues at the study intersections were reviewed to identify locations where they may exceed the available storage. The 95th percentile queue lengths represent queues that have only a 5-percent probability of exceeding the available storage lengths. This measure is typically used in traffic engineering as a conservative measure of queuing and since it only has a 5-percent probability of being exceeded, the average driver would likely experience shorter queue lengths than what is being reported

For through movements and turning movements without a dedicated lane, the available storage is assumed to be the distance from the stop bar to the departure point of the nearest upstream stop-controlled or signalized intersection. For turning movements with an exclusive turn lane, the length of the turn bay is assumed to be the available storage. Under Existing Conditions, the following movements were found to queue beyond their available storage capacity at the 95th percentile demand level:

- The westbound left-turn movement at the Mission Boulevard & Orchard Avenue/Carlos Bee Boulevard intersection (#1) spills back beyond the length of its exclusive turn lane. However, the queues do not spill back to adjacent intersections.
- The eastbound left-turn movement at the Mission Boulevard & Harder Road intersection (#6) spills back beyond the length of their exclusive turn lanes and to the Dollar Street & Harder Road intersection (#5). Extending the length of turn lanes to accommodate the 95th percentile queues at this location is not feasible due to the proximity with the westbound left-turn lane pocket at the intersection of Dollar Street & Harder Road.
- The eastbound left-turn movement at the Mission Boulevard & Tennyson Road intersection (#7) spill back beyond the length of their exclusive turn pockets. However, these queues do not spill back to adjacent intersections.

Appendix E contains the queuing results at all the study intersections. Appendix F tabulates 95th percentile queues at the study intersections for all Existing scenarios.

2 PROJECT DESCRIPTION

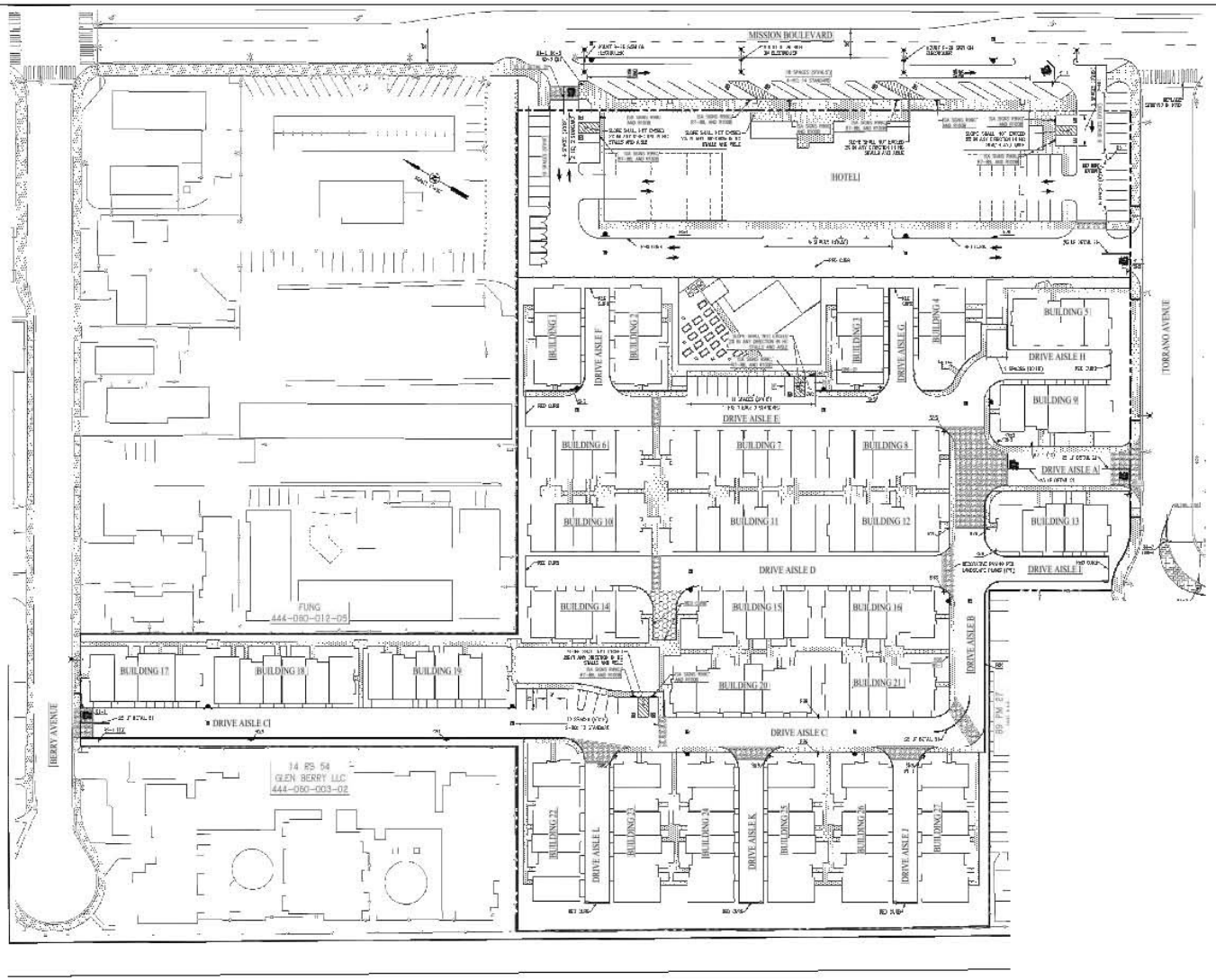
The proposed Mission Crossings project will consist of 140 condominium type residential units and a 93-room hotel as listed in Table 8. The proposed site is located in the northwest quadrant of the Mission Boulevard and Torrano Avenue-North intersection in City of Hayward, California. Access to the proposed hotel will be provided via a one-way slip lane on Mission Boulevard (right-turn inbound-only driveway in the northeast corner of the Project site and right-turn outbound-only driveway in the southeast corner of the Project site) and a full access driveway on Torrano Avenue. Access to the residential portion of the Project would be provided via a full access driveway on Torrano Avenue and a full access driveway on Berry Avenue. The Project site plan is provided in Figure 5.

Table 8: Proposed Project Land Use Mix

Land Use	GLA	Units
Residential	140	du
Hotel	93	rooms
Coffee Shop	1,500	sf
Specialty Retail	5,725	sf

Source: Project Applicants Application, 2016

Figure 5: Site Plan



2.1 TRIP GENERATION

The area covering the Project site was evaluated in 2012 as part of the Mission Boulevard Specific Plan. The specific plan covered a wider area than the proposed project. As such, land uses with similar or higher trip generation were included for the Project site as part of the Form-Based Code in the Mission Boulevard Specific Plan and it was cleared environmentally at a Programmatic Level. The specific plan analyzed higher trip growth using the Hayward General Plan model for the traffic analysis zone covering the Project site. The Project specific application includes more defined land uses that utilize ITE Trip generation to quantify the project trips.

Automobile trip generation by the proposed project was derived from average rates, regression equations, and adjustments contained in the Institute of Transportation Engineer's (ITE) *Trip Generation Manual 9th Edition*. This trip generation estimates are presented in Table 9 and the rates are included in Appendix C.

Two types of adjustments were applied as part of the calculation. First, a pass-by trip reduction was applied to account for motorists that are already using the City's network, but would make a stop at the proposed development before continuing their original trip. Secondly, a reduction was taken based on the trips originating and ending within the proposed development (internalization).

Due to the nature of the Proposed Project (residential and hotel) and the area surrounding the Project site, pedestrian and bicycle volumes are not expected to change significantly from those presented in Existing Conditions (refer to Table 4 and Table 5).

Table 9: Proposed Project Automobile Trip Generation

				(Trip Ends)						
					AM			PM		
Land Use	**GLA**	**Units**	**ITE Code**	**Daily**	**Total**	**In**	**Out**	**Total**	**In**	**Out**
Residential	140	du	230	819	62	11	51	73	49	24
Less Internalization				*(25)*	--	--	--	*(4)*	*(3)*	*(1)*
Hotel	93	rooms	310	760	49	29	20	56	29	27
Coffee Shop	1,500	sf	936	1,118	163	83	80	61	31	30
Less Pass-By				*(470)*	*(68)*	*(34)*	*(34)*	*(26)*	*(13)*	*(13)*
Specialty Retail	5,725	sf	826	254	--	--	--	16	7	9
Less Internalization				*(8)*	--	--	--	*(1)*	*0*	*(1)*
Total Trips				**2,448**	**206**	**89**	**117**	**175**	**100**	**75**

Source: Kittelson & Associates, Inc. 2017

Due to the mix of land uses in the Proposed Project (residential, hotel and retail), the proposed project will generate both internal and external pedestrian and bicycle trips and transit trips. According to the City of Hayward General Plan traffic model, the project is expected to generate about 2% pedestrian trips, 4% bicycle trips and 4% transit trips. Most of the-non-motorized trips are internal interactions between the residential and hotel/retail parcels. Table 10 provides a summary of the non-motorized and transit trips.

Table 10: Proposed Project Pedestrian, Bicycle and Transit Trip Generation

Trip Type	Daily	AM	PM
Pedestrian Trips	50	4	4
Bicycle Trips	100	8	8
Transit Trips	100	8	8

Note: Pedestrian, bicycle, and transit trips are based on mode split percentages derived from the City of Hayward General Plan traffic Model.

Source: Kittelson & Associates, Inc. 2017

2.2 TRIP DISTRIBUTION

Project trip distribution is typically developed using a travel demand model. In this case, a "select zone" analysis was performed for the proposed project site (Transportation Analysis Zone 694) using the Hayward General Plan Update model. Using the model is an acceptable method for determining the trip distribution of large projects within a regional context and has been vetted by City of Hayward Engineering staff. The distribution from the model was adjusted in coordination with City staff to match travel patterns from/to proposed Project driveway locations.

Table 11 presents the results in a simplified compass direction manner.

Figure 6 presents the Project only volumes at all the driveways. Figure 7 presents the Project Only turning movement volumes derived from the trip generation and trip distribution discussed in this section.

Table 11: Simplified Project Trip Distribution

Direction	Percentage
To/From West via Orchard Avenue	7%
To/From North via Mission Boulevard	40%
To/From East via Carlos Bee Boulevard	3%
To/From West via Harder Road	35%
To/From South via Mission Boulevard	15%

Note: Trip Distribution derived from the Hayward General Plan Traffic Model and coordination with Public Works Staff.
Source: Kittelson & Associates, Inc. 2017

Figure 6: Automobile Peak Hour Volumes, Project Only at Driveways

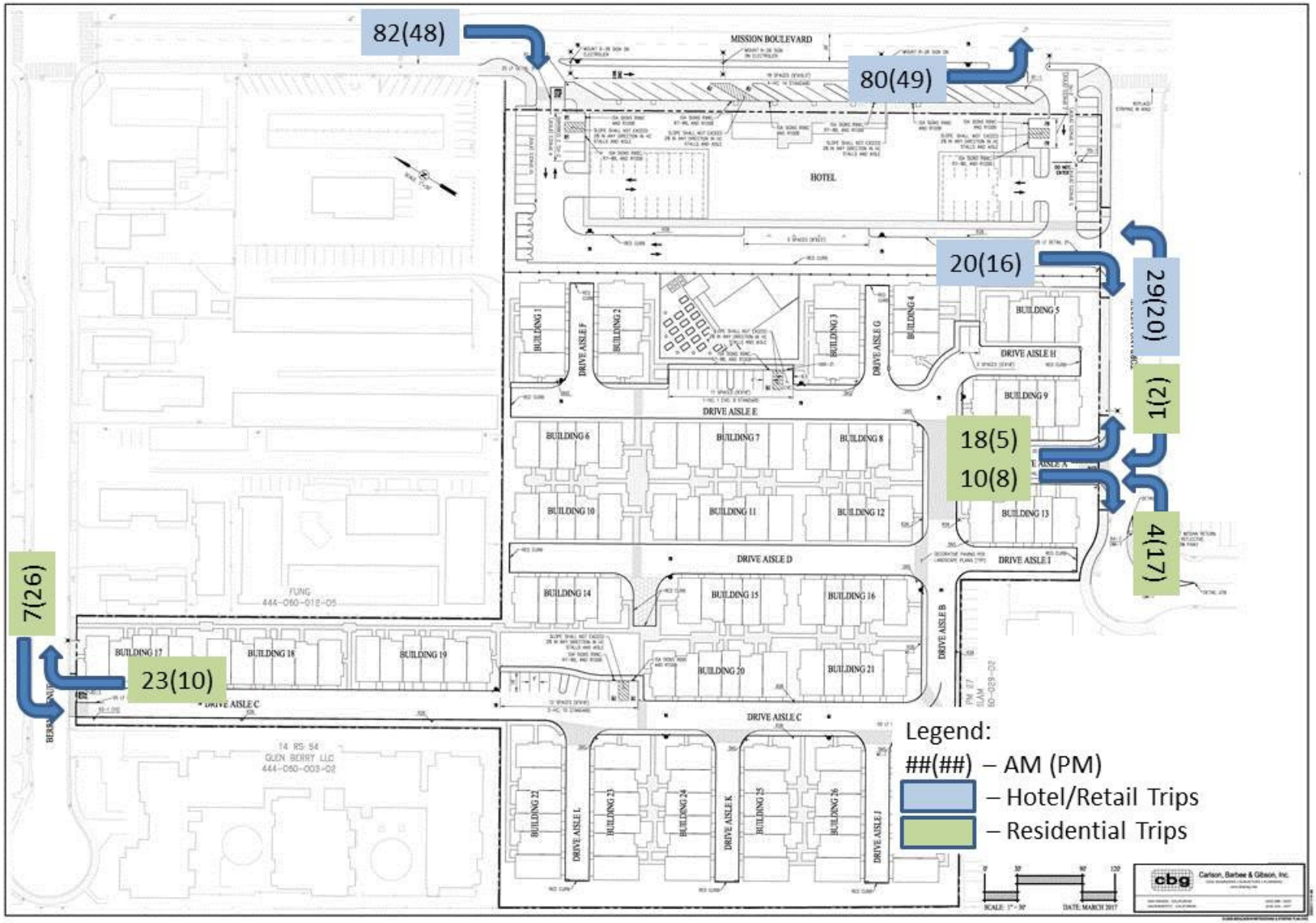
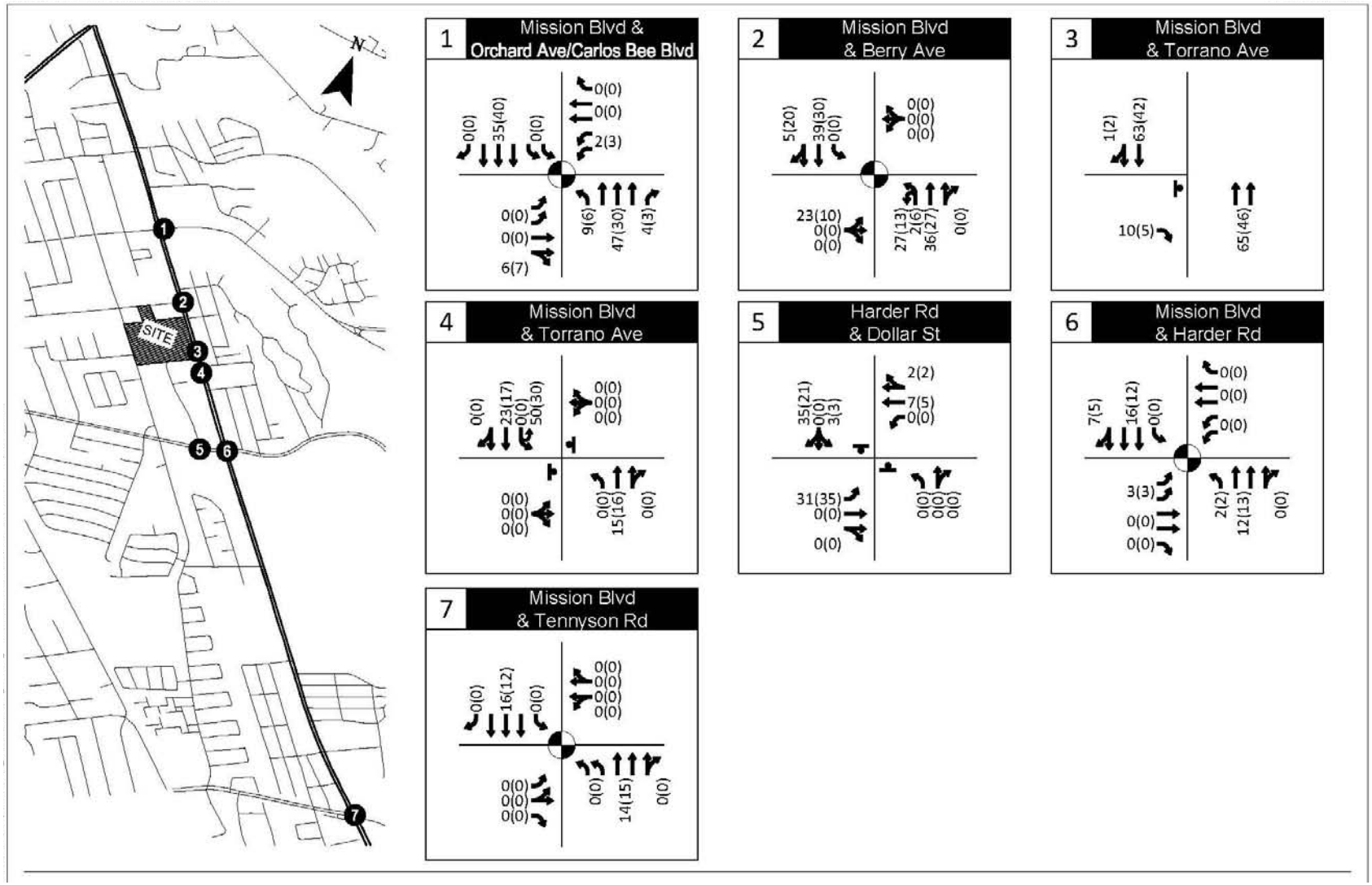


Figure 7: Automobile Peak Hour Volumes, Project Only



3 EXISTING PLUS PROJECT TRAFFIC CONDITIONS

3.1 DEMAND

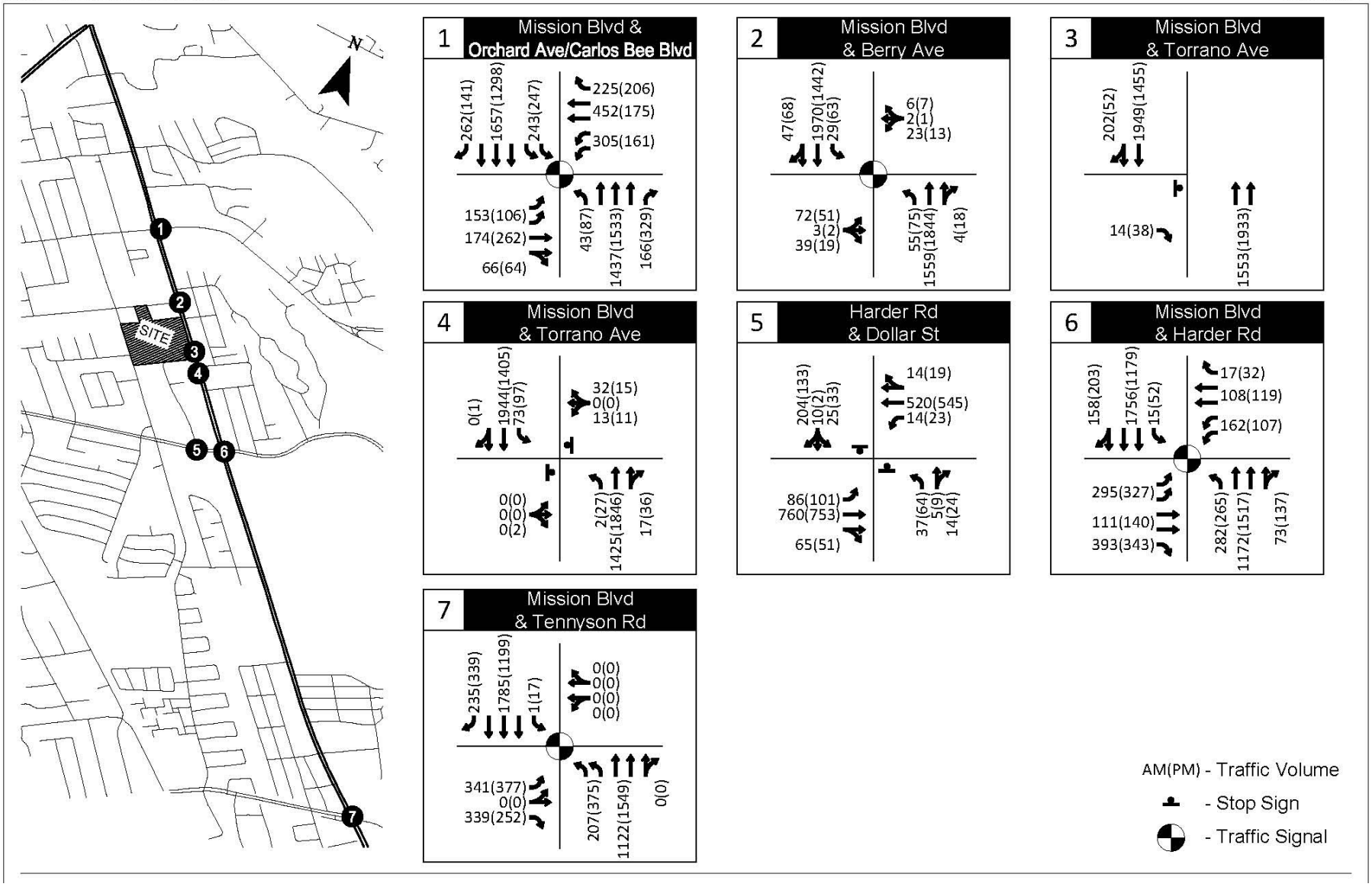
3.1.1 Automobile Traffic Volumes

The automobile turning movement counts for the Existing Plus Project scenario were developed from the sum of the Existing Conditions turning movement counts and the Project Only turning movements described above (and displayed in Figure 7). Figure 8 presents the Existing Plus Project turning movements.

3.1.2 Pedestrian and Bicycle Volumes

Due to the mixed-use of land uses in the Proposed Project (residential and retail/hotel), the proposed project will generate both internal to the site and external pedestrian and bicycle trips. However due to the location and area surrounding the Project site, external pedestrian and bicycle volumes are not expected to be significant. According to the City of Hayward General Plan traffic model, the project is expected to generate about 2% pedestrian trips and 4% bicycle trips. According to Table 10, the project would generate less than 10 pedestrian, bicycle, and transit trips in each peak hour. Most of these trips are internal interactions between the residential and hotel/retail parcels. All internal trips would use the planned pedestrian marked sidewalks and pedestrian walkways between the residential area and the hotel/retail area, and the pedestrian walkway at the hotel/retail slip lane to access destinations within the Project site. All external trips would utilize existing pedestrian sidewalks and marked crossings to access nearby transit stops and other destinations.

Figure 8: Automobile Peak Hour Volumes, Existing Plus Project



3.2 PERFORMANCE

3.2.1 Traffic Signal Warrants

Table 12 presents a summary of the traffic signal warrants in the Existing and Existing Plus Project Conditions scenarios. Appendix D contains the peak hour signal warrant worksheets.

As shown in Table 12, peak hour signal warrants are met at the Dollar Street and Harder Road intersection for both Existing and Existing Plus Project conditions during both peak hours. Although the signal warrant is met, City staff may decide that the installation of a signal is not appropriate at this intersection due to its close proximity to the adjacent intersection of Mission Boulevard and Harder Road.

Table 12: Traffic Signal Peak Hour Warrants, Existing Plus Project Conditions

#	Intersection	Control	Peak Hour	Existing	Existing Plus Project
3	Mission Boulevard SW & Torrano Avenue-North	OWSC	AM	Not Met	Not Met
			PM	Not Met	Not Met
4	Mission Boulevard & Torrano Avenue-South	TWSC	AM	Not Met	Not Met
			PM	Not Met	Not Met
5	Dollar Street & Harder Road	TWSC	AM	**Met**	**Met**
			PM	**Met**	**Met**

Based on California MUTCD (2014) Peak Hour Warrant
bold signifies that the warrant is met
Source: Kittelson & Associates, Inc. 2017

3.2.2 Automobile Level of Service

Table 13 presents the Existing Conditions and Existing Plus Project delays and LOS for the study intersections. The table also compares the change in delay between the two scenarios. Appendix E contains the LOS worksheets.

As shown in Table 13, the following intersection reaches LOS F on the worst approach, as follows:

- The westbound approach (worst approach) of Intersection 4 (Mission Boulevard & Torrano Avenue-South) continues to operate at LOS F during the PM peak hour after the addition of the Project traffic, but since the average delay only increases by 0.3 seconds, this is not a significant impact. In addition, since the Project is not expected to add any trips to the worst approach, this increase in delay does not result in a significant impact caused by the Project.

All other study intersections continue to operate at LOS E or better during both peak hours with the addition of the Project traffic. The Project does not result in significant impacts at any of the study intersections for the Existing Plus Project conditions.

Table 13: Automobile Level of Service, Existing Plus Project

#	Intersection	Control	Peak Hour	Existing		Existing Plus Project		Delay Delta (s/veh)
				Delay (s/veh)	LOS	Delay (s/veh)	LOS	
1	Mission Boulevard & Orchard Avenue/ Carlos Bee Boulevard	Signalized	AM	38.4	D	38.5	D	0.1
			PM	34.0	C	34.2	C	0.2
2	Mission Boulevard & Berry Avenue	Signalized	AM	12.5	B	16.0	B	3.5
			PM	12.7	B	15.1	B	2.4
3	Mission Boulevard & Torrano Avenue-North [a]	OWSC	AM	0.0(11.2)	A(B)	0.1(16.6)	A(C)	0.1(5.4)
			PM	0.1(9.2)	A(A)	0.1(9.1)	A(A)	0.0(-0.1)
4	Mission Boulevard & Torrano Avenue-South [b]	TWSC	AM	0.5(29.0)	A(D)	0.7(30.3)	A(D)	0.2(1.3)
			PM	**1.1(71.4)**	**A(F)**	**1.4(76.4)**	**A(F)**	0.3(5.0)
5	Dollar Street & Harder Road [c][d]	TWSC	AM	**3.6(33.7)**	**A(D)**	**4.7(44.4)**	**A(E)**	1.1(10.7)
			PM	**3.5(30.3)**	**A(D)**	**4.3(37.7)**	**A(E)**	0.8(7.4)
6	Mission Boulevard & Harder Road	Signalized	AM	46.7	D	47.3	D	0.6
			PM	48.7	D	49.1	D	0.4
7	Mission Boulevard & Tennyson Road	Signalized	AM	26.7	C	26.7	C	0.0
			PM	29.9	C	30.0	C	0.1

LOS based on HCM 2000

bold signifies LOS worse than the target and/or that signal warrants are met

LOS and Control delays for unsignalized intersections are presented for average and (worst approach)

[a] The worst delay at this intersection was reported for the eastbound approach.

[b] The worst delay at this intersection was reported for the westbound approach. No Project trips are added to the westbound approach.

[c] The worst delay at this intersection was reported for the northbound approach. No Project trips are added to the northbound approach.

[d] Peak hour signal warrants are met at this intersection during both peak hours, however, City staff may decide that the installation of a signal is not appropriate at this intersection due to its close proximity to adjacent Intersection 6 (Mission Boulevard & Harder Road).

Source: Kittelson & Associates, Inc. 2017

3.2.3 Queue Storage

The 95th percentile queues at the study intersections were reviewed to identify locations where they may exceed the available storage. Under Existing Plus Project, the following movements were found to queue beyond their available storage capacity at the 95th percentile demand level:

- The westbound left-turn movement at the Mission Boulevard & Orchard Avenue/Carlos Bee Boulevard intersection (#1), which was already over capacity in the No Project scenario, continues to spill back beyond the length of its exclusive turn lane. However, the queues do not spill back to adjacent intersections. With the addition of the Project trips, the queue is increased by a maximum of two feet (less than one car) during the peak hour.
- The addition of proposed Project trips may cause the northbound left-turn at the Mission Boulevard & Berry Avenue intersection (#2) to spill back beyond the length of their exclusive turn pockets. There is a median on Mission Boulevard directly in front of the Project site and at the Mission Boulevard/Torrano Avenue-North intersection (#3) which would limit northbound left-turn access into the Project site. Thus, trips for the hotel portion of the Project have to make a U-turn at Berry Avenue to access the driveway on Mission Boulevard and trips for the residential portion of the Project have to make a left-turn to access the driveway on Berry Avenue. After two cycles however, the maximum 95th percentile queue reported by the Synchro 8 software for this movement does not spill back beyond the length of its exclusive turn pocket. With the addition of the Project trips, the queue is increased by a maximum of 60 feet (approximately three cars) during the peak hour. Due to the center median on Mission Boulevard, the storage length of the northbound left-turn lane may be increased with minimal impact to other modes, should it be needed.
- The eastbound left-turn movement at the Mission Boulevard & Harder Road intersection (#6), which was already over capacity in the No Project scenario, continues to spill back beyond the length of its exclusive turn lanes and to the Dollar Street & Harder Road intersection (#5). With the addition of the Project traffic, this queue is increased by a maximum of four feet (less than one car) during the peak hour. Extending the length of turn lanes to accommodate the 95th percentile queues at this location is not feasible due to the proximity with the westbound left-turn lane pocket at the intersection of Dollar Street & Harder Road.
- The eastbound left-turn movement at the Mission Boulevard & Tennyson Road (#7) intersection, which was already over capacity in the No Project scenario, continues to spill back beyond the length of its exclusive turn pockets. However, these queues do not spill back to adjacent intersections. No Project trips are added to this movement.

Appendix E contains the queuing results at all study intersections. Appendix F tabulates 95th percentile queues at the study intersections for all Existing scenarios.

3.2.4 Pedestrian, Bicycle, and Transit Service

As described in the Pedestrian and Bicycle section (Section 2.1), the Project will encourage pedestrian, bicycle and transit trips with proximity to existing facilities and new planned

improvements, bicycle parking and proximity to transit stops on Mission Boulevard. However, according to the Hayward General Plan model, the Proposed Project is not expected to generate a significant number of pedestrian and bicycle trips (less than 10 trips per peak hour per mode). Therefore, no adverse effects to pedestrian or bicycle facilities or level of service are expected as a result of the build-out of the Proposed Project.

Similarly, the Proposed Project will generate less than 10 transit trips in each peak hour, and is not expected to have an adverse impact on transit stops and operations on Mission Boulevard beyond the intersection delays described in detail in Section 3.2.2.

Therefore the impact to existing pedestrian, bicycle and transit facilities would be less-than-significant.

4 BACKGROUND 2020 PLUS PROJECT CONDITIONS

4.1 DEVELOPMENT OF BACKGROUND 2020 NETWORK

The latest available Alameda CTC Countywide Model with ABAG Projections 2009 was reviewed to ensure that future regional roadway improvements are included as part of the Background 2020 scenario. As part of the recently constructed Kaufman and Broad Residential Homes Project at southwest side of Dollar Street, the southbound approach at the Dollar Street & Harder Road intersection (#5) will be converted to a 100-foot left-turn lane and a shared through/right-turn lane. The Background 2020 analysis assumed that this modification has been implemented.

4.2 DEVELOPMENT OF BACKGROUND 2020 DEMAND

The City of Hayward does not have a 2020 scenario available as part of the General Plan, so there is no 2020 model available to forecast the background traffic for 2020. Therefore, an interpolation was made between the 2012 model volumes and the 2035 model volumes to derive the 2020 background volumes.

Figure 9 presents the Background 2020 No-Project volumes derived from the growth factor method. Project traffic was then added to the Background 2020 No-Project volumes, and Figure 10 displays the Background 2020 Plus Project volumes.

Figure 9: Background 2020 No Project Automobile Peak Hour Volumes

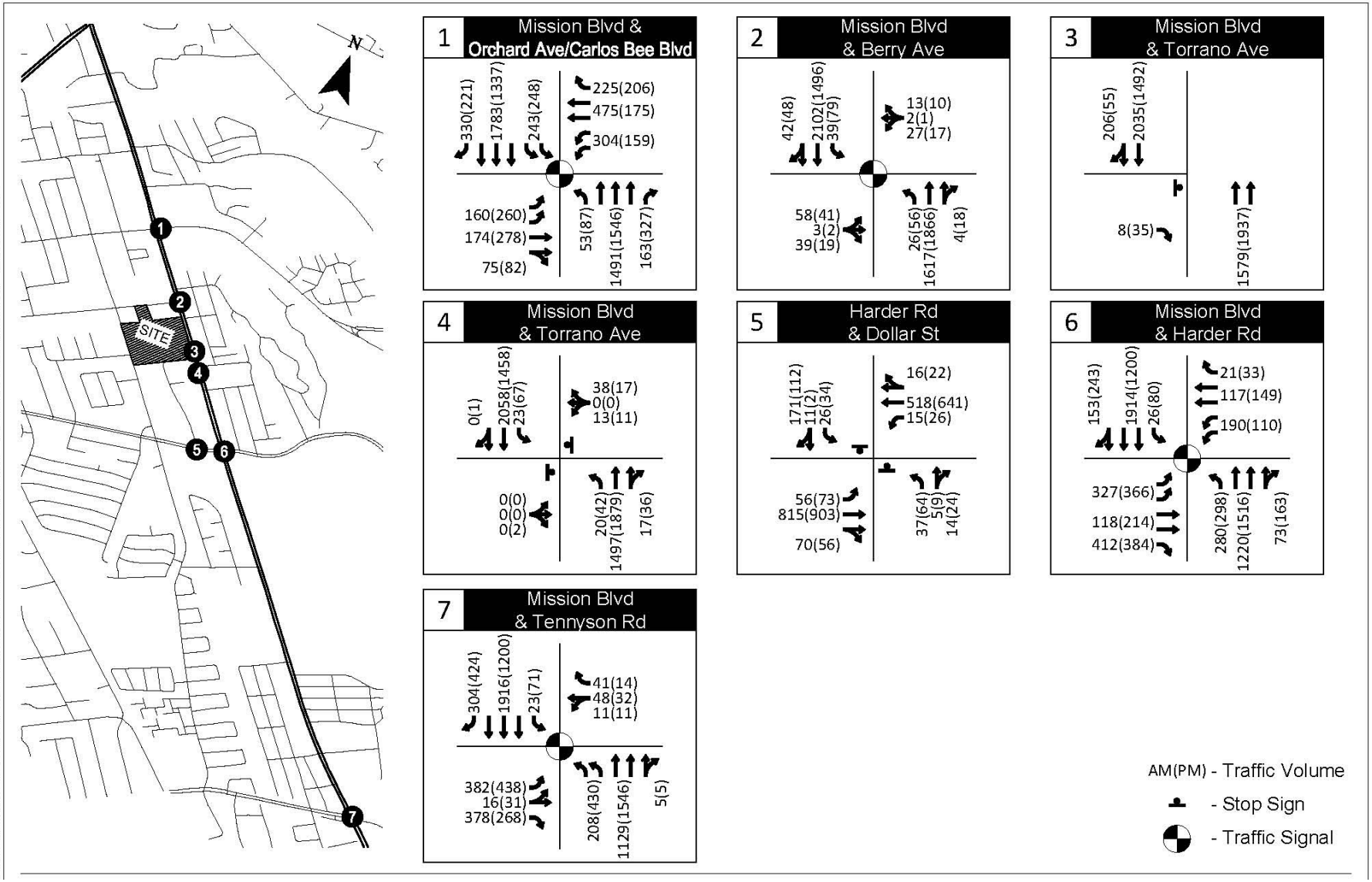
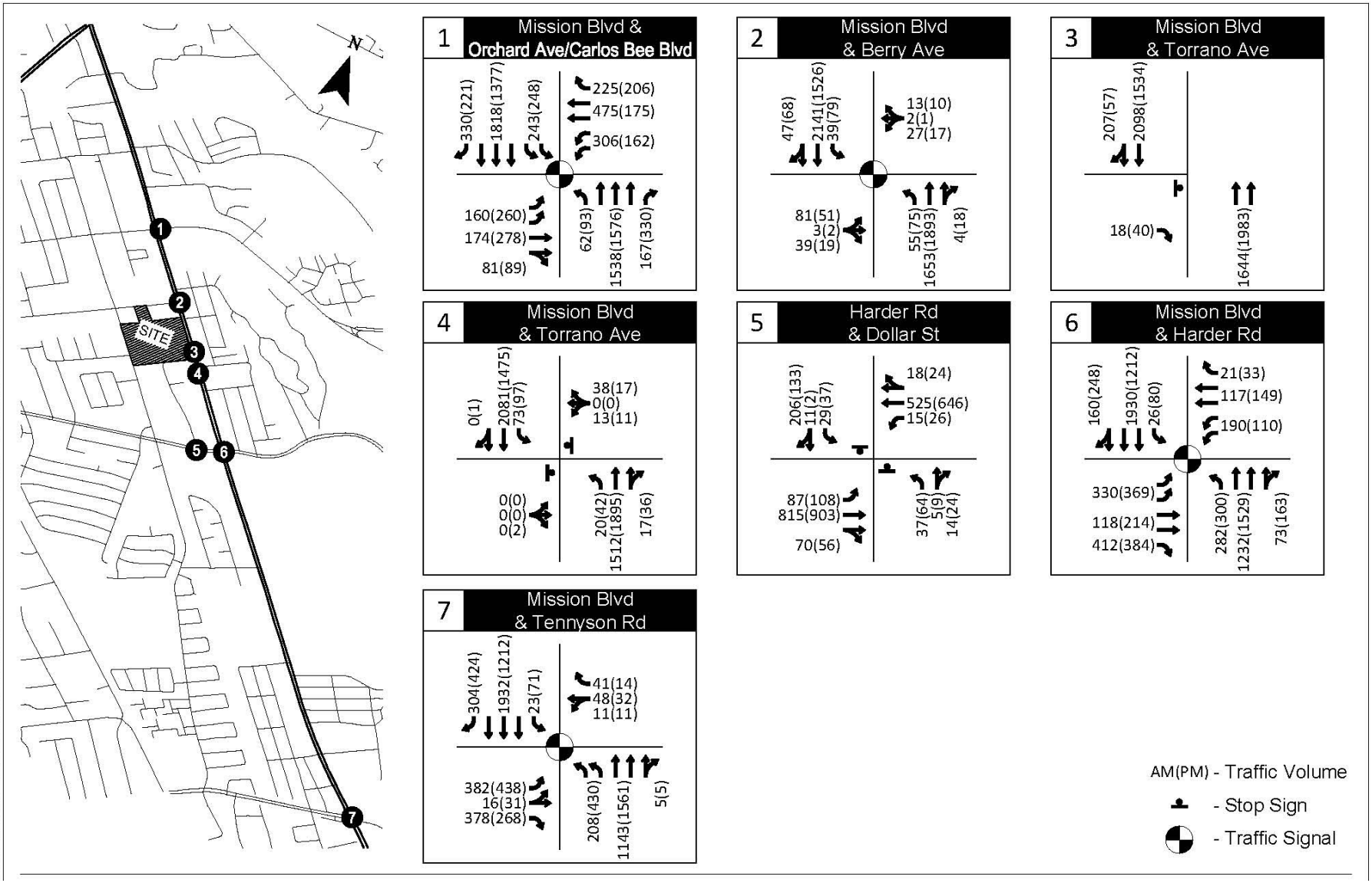


Figure 10: Background 2020 Plus Project Automobile Peak Hour Volumes



4.3 PERFORMANCE

4.3.1 Traffic Signal Warrants

Table 14 presents a summary of the traffic signal warrants in the Background 2020 Conditions scenario. Appendix G contains the traffic signal warrant worksheets.

As shown in Table 14, peak hour signal warrants are met at the Dollar Street and Harder Road intersection for both Background 2020 and Background 2020 Plus Project conditions during both peak hours. Although the signal warrant is met, City staff may decide that the installation of a signal is not appropriate at this intersection due to its close proximity to adjacent intersection of Mission Boulevard and Harder Road.

Table 14: Traffic Signal Warrants, Background 2020

#	Intersection	Control	Peak Hour	Background 2020	Background 2020 Plus Project
3	Mission Boulevard SW & Torrano Avenue-North	OWSC	AM	Not Met	Not Met
			PM	Not Met	Not Met
4	Mission Boulevard & Torrano Avenue-South	TWSC	AM	Not Met	Not Met
			PM	Not Met	Not Met
5	Dollar Street & Harder Road	TWSC	AM	**Met**	**Met**
			PM	**Met**	**Met**

Based on California MUTCD (2014) Peak Hour Warrant
bold signifies that the warrant is met
Source: Kittelson & Associates, Inc. 2017

4.3.2 Automobile Level of Service

Levels of service (LOS) at the study intersections were evaluated based on the 2000 Highway Capacity Manual methodology, as implemented in the Synchro 8 software package. LOS analysis was performed for the AM and PM peak hours, using forecast turning movement volumes. The future year analysis assumed that signal timings would be unchanged from those in Existing Conditions. Table 15 presents the Background 2020 No-Project and Plus Project delays and LOS for the study intersections. Appendix E contains the LOS worksheets.

As shown in Table 15, the following intersections reach LOS F, as follows:

- The westbound approach (worst approach) of Intersection 4 (Mission Boulevard & Torrano Avenue-South) continues to operate at LOS F on the worst approach during the PM peak hour after the addition of the Project traffic. But since the average delay only increases by 0.3 seconds, this is not a significant impact. In addition, since the Project is not expected to add any trips to the worst approach, this increase in delay does not result in a significant impact caused by the Project.
- The northbound approach (worst approach) of Intersection 5 (Dollar Street & Harder Road) worsens from LOS E to LOS F during the PM peak hour with the addition of the Project traffic. However, since the average delay results in LOS A even after the addition of the Project, this is not a significant impact. In addition, since the Project is not expected to add any trips to this approach, this increase in delay does not result in a significant impact caused by the Project. Peak hour signal warrants are met at this intersection during both peak hours; however, City staff may decide that the installation of a signal is not appropriate at this intersection due to its close proximity to adjacent Intersection 6 (Mission Boulevard & Harder Road).

All other study intersections continue to operate at LOS E or better during both peak hours with the addition of the Project traffic. The Project does not result in significant impacts at any of the study intersections for the Background 2020 Plus Project conditions.

Table 15: Background 2020 Automobile Level of Service

#	Intersection	Control	Peak Hour	Background 2020		Background 2020 Plus Project		Delay Delta (s/veh)
				Delay (s/veh)	LOS	Delay (s/veh)	LOS	
1	Mission Boulevard & Orchard Avenue/ Carlos Bee Boulevard	Signalized	AM	39.4	D	40.0	D	0.6
			PM	37.6	D	37.9	D	0.3
2	Mission Boulevard & Berry Avenue	Signalized	AM	16.1	B	19.5	B	3.4
			PM	14.5	B	16.3	B	1.8
3	Mission Boulevard & Torrano Avenue-North [a]	OWSC	AM	0.0(16.9)	A(C)	0.1(16.2)	A(C)	0.1(-0.7)
			PM	0.1(9.1)	A(A)	0.1(9.3)	A(A)	0.0(0.2)
4	Mission Boulevard & Torrano Avenue-South [b]	TWSC	AM	0.7(35.1)	A(E)	1.0(37.8)	A(E)	0.3(2.7)
			PM	**1.3(82.6)**	**A(F)**	**1.6(89.4)**	**A(F)**	0.3(6.8)
5	Dollar Street & Harder Road [c][d]	TWSC	AM	**3.4(37.0)**	**A(E)**	**4.3(49.5)**	**A(E)**	0.9(12.5)
			PM	**3.8(42.9)**	**A(E)**	**4.7(56.7)**	**A(F)**	0.9(13.8)
6	Mission Boulevard & Harder Road	Signalized	AM	59.7	E	61.7	E	2.0
			PM	58.0	E	58.5	E	0.5
7	Mission Boulevard & Tennyson Road	Signalized	AM	33.8	C	33.9	C	0.1
			PM	39.3	D	39.4	D	0.1

LOS based on HCM 2000

bold signifies LOS worse than the target and/or that signal warrants are met

LOS and Control delays for unsignalized intersections are presented for average and (worst approach)

[a] The worst delay at this intersection was reported for the eastbound approach.

[b] The worst delay at this intersection was reported for the westbound approach. No Project trips are added to the westbound approach.

[c] The worst delay at this intersection was reported for the northbound approach. No Project trips are added to the northbound approach.

[d] Peak hour signal warrants are met at this intersection during both peak hours, however, City staff may decide that the installation of a signal is not appropriate at this intersection due to its close proximity to adjacent Intersection 6 (Mission Boulevard & Harder Road).

Source: Kittelson & Associates, Inc. 2017

4.3.3 Queue Storage

The 95th percentile queues at the study intersections were reviewed to identify locations where they may exceed the available storage. Under the Background 2020 scenario, the following movements were found to queue beyond their available storage capacity at the 95th percentile demand level:

- The westbound left-turn movement at the Mission Boulevard & Orchard Avenue/Carlos Bee Boulevard intersection (#1), which was already over capacity in the No Project scenario, continues to spill back beyond the length of its exclusive turn lane. However, the queues do not spill back to adjacent intersections. With the addition of the Project trips, the queue is increased by a maximum of four feet (less than one car) during the peak hour.
- The southbound left-turn movement at the Mission Boulevard & Berry Avenue intersection (#2), which was already over capacity in the No Project scenario, continues to spill back

beyond the length of its exclusive turn pockets. However, these queues do not spill back to adjacent intersections. No Project trips are added to this movement.

- The addition of proposed Project trips may cause the northbound left-turn at the Mission Boulevard & Berry Avenue intersection (#2) to spill back beyond the length of their exclusive turn pockets. There is a median on Mission Boulevard directly in front of the Project site and at the Mission Boulevard/Torrano Avenue-North intersection (#3) which would limit northbound left-turn access into the Project site. Thus, trips for the hotel portion of the Project have to make a U-turn at Berry Avenue to access the driveway on Mission Boulevard and trips for the residential portion of the Project have to make a left-turn to access the driveway on Berry Avenue. After two cycles however, the maximum 95th percentile queue reported by the Synchro 8 software for this movement does not spill back beyond the length of its exclusive turn pocket. With the addition of the Project trips, the queue is increased by a maximum of 65 feet (approximately three cars) during the peak hour. Due to the center median on Mission Boulevard, the storage length of the northbound left-turn lane may be increased with minimal impact to other modes, should it be needed.
- The eastbound left-turn movement at the Mission Boulevard & Harder Road intersection (#6), which was already over capacity in the No Project scenario, continues to spill back beyond the length of its exclusive turn lanes and to the Dollar Street & Harder Road intersection (#5). With the addition of the Project traffic, this queue is increased by a maximum of four feet (less than one car) during the peak hour. Extending the length of turn lanes to accommodate the 95th percentile queues at this location is not feasible due to the proximity with the westbound left-turn lane pocket at the intersection of Dollar Street & Harder Road.
- The eastbound left-turn movement at the Mission Boulevard & Tennyson Road intersection (#7), which was already over capacity in the No Project scenario, continues to spill back beyond the length of its exclusive turn pockets. However, these queues do not spill back to adjacent intersections. No Project trips are added to this movement.

Appendix H contains the queuing results at all the study intersections. Appendix I tabulates the 95th percentile queues at the study intersections for all Background 2020 scenarios.

4.3.4 Pedestrian, Bicycle, and Transit Service

As described in the Pedestrian and Bicycle section (Section 2.1), the Project will encourage pedestrian, bicycle and transit trips with proximity to existing facilities and new planned improvements, bicycle parking and proximity to transit stops on Mission Boulevard. However, according to the Hayward General Plan model, the Proposed Project is not expected to generate a significant number of pedestrian and bicycle trips (less than 10 trips per peak hour per mode). Therefore, no adverse effects to pedestrian or bicycle facilities or level of service are expected as a result of the build-out of the Proposed Project.

Similarly, the Proposed Project will generate less than 10 transit trips in each peak hour, and is not expected to have an adverse impact on transit stops and operations on Mission Boulevard beyond the intersection delays described in detail in Section 4.3.2.

Therefore the impact to existing pedestrian, bicycle and transit facilities would be less-than-significant.

5 CUMULATIVE 2035 PLUS PROJECT CONDITIONS

The potential impacts to the transportation system were evaluated according to the standards and practices of the City of Hayward and ACTC using *2000 Highway Capacity Manual* methodologies. The impacts to the intersections were evaluated using projected peak hour traffic volumes derived from the Hayward General Plan Update version of the Alameda CTC Countywide Model and the project trips described in the Project Description section.

Note that while the model version used for this study is the 2035 Citywide General Plan model with ABAG Projections 2009, the Alameda CTC countywide model has now extended out to 2040 and includes less conservative Association of Bay Area Governments (ABAG) Plan Bay Area projections. However, it was determined in coordination with City staff that the General Plan model should be used for this study since it is more conservative within Hayward given that it includes buildout of the City's General Plan. Therefore, for purposes of the traffic analysis the 2035 horizon year was assumed to be consistent with the General Plan and is sufficiently conservative for development of cumulative traffic forecasts in the study area.

5.1 DEVELOPMENT OF CUMULATIVE 2035 NETWORK

The latest available Alameda CTC Countywide Model with ABAG Projections 2009 was reviewed to ensure that future regional roadway improvements are included as part of the Cumulative 2035 condition. The following network modifications were assumed as part of the Cumulative 2035 (i.e., baseline or "No Project") conditions that were not previously included in the Alameda CTC countywide model assumptions:

- Tennyson Road Extension
- Route 238 Corridor Improvements including the downtown loop (completed)
- New northbound off-ramp at I-880 at Industrial Boulevard
- New interchange at S.R. 92 at Whitesell Street/Clawiter Road
- Whitesell Street Extension
- Removal of the West A Street Extension connection
- As part of the Kaufman and Broad Residential development on Dollar Street, conversion of the southbound approach at Dollar Street/Harder Road intersection (#5) to a 100-foot left-turn lane and a shared through/right-turn lane

5.2 DEVELOPMENT OF CUMULATIVE 2035 DEMAND

The model includes future development throughout the region. The 2035 forecasts are consistent with regional totals for growth projected by ABAG in their Projections 2009 report. Therefore, the traffic forecasts reflect traffic from growth in Hayward as well as traffic from future developments in the region that may use the local roadways. Cumulative 2035 No-Project volumes were extracted

from the travel model and adjusted based on the incremental or difference method described in NCHRP 255[2] methods, consistent with the methodology used for the Hayward General Plan and other citywide Specific Plans. The method compares 2035 model volumes to existing year model volumes to identify the growth increment, and then adds this increment to the existing counts, thus smoothing out any model validation error compared to existing counts. When new roadway facilities are introduced in 2035, in some cases traffic growth would be allowed to reduce below existing count levels for some turn movements. In this case, there are no significant new roadway facilities in the immediate study area, so the incremental adjustment method did not produce negative traffic growth.

The development of cumulative volumes included and assumed trips from the adjacent 98 room Springhill Hotel project located at 25697 Mission Boulevard and the La Vista residential development along the Tennyson Road extension east of Mission Boulevard. The analysis also includes other planned developments within the project vicinity as assumed in the Hayward General Plan Update model

The adjustment of the demand volumes is highlighted in the volume tables in Appendix J.

Figure 11 presents the Cumulative No-Project volumes derived from the travel demand model and the incremental adjustment process and Figure 12 presents the Cumulative Plus Project volumes.

[2] Highway Traffic Data for Urbanized Area Project Planning and Design, Transportation Research Board, 1992.

Figure 11: Cumulative 2035 No Project Automobile Peak Hour Volumes

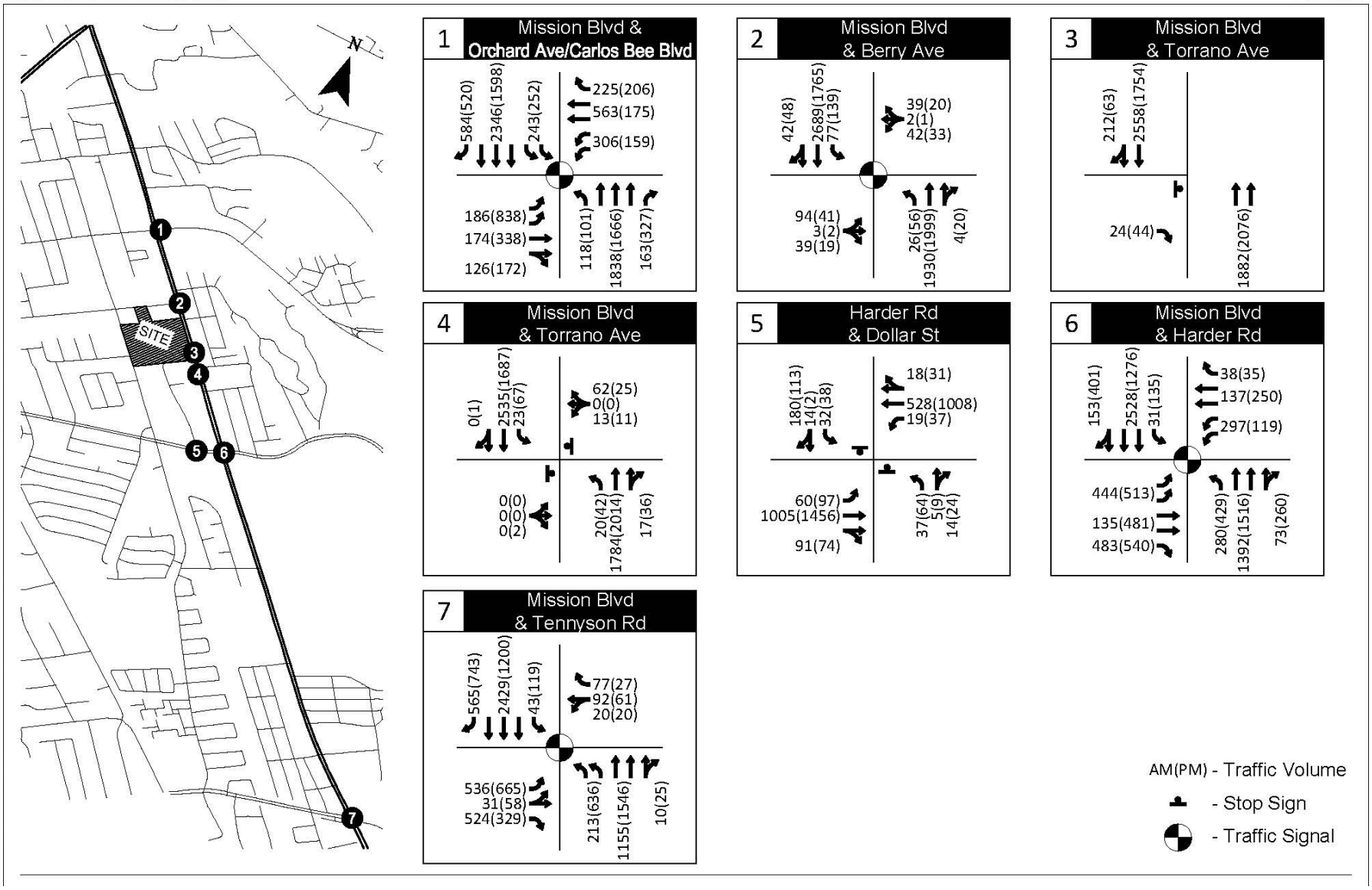
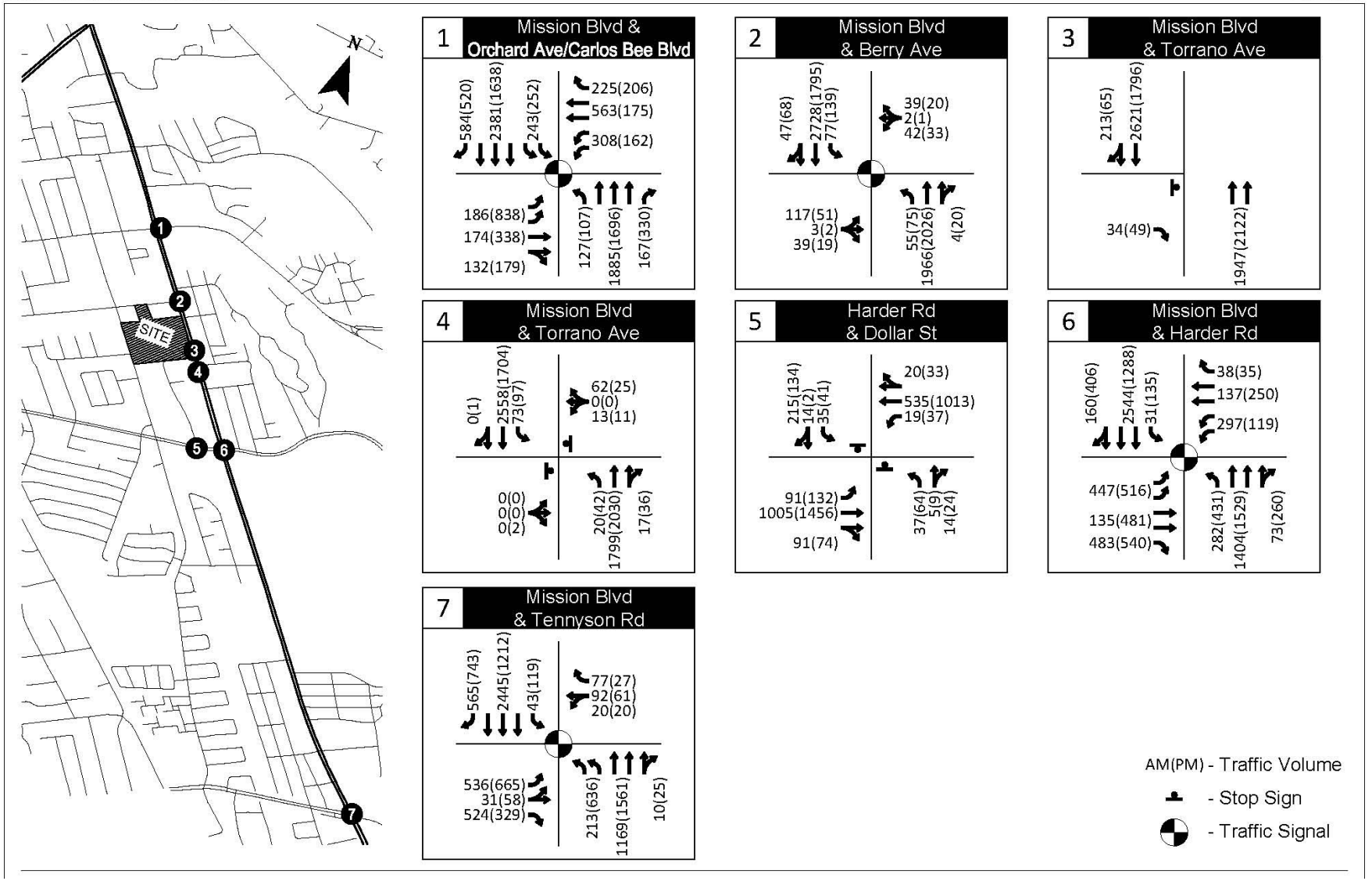


Figure 12: Cumulative 2035 Plus Project Automobile Peak Hour Volumes



5.3 PERFORMANCE

5.3.1 Traffic Signal Warrants

Table 16 presents a summary of the traffic signal warrants in the Cumulative scenario. Appendix K contains the peak hour warrant worksheets.

As shown in Table 16, peak hour signal warrants are met at the Dollar Street and Harder Road intersection for both Cumulative No Project and Cumulative Plus Project conditions during both peak hours. Although the signal warrant is met, City staff may decide that the installation of a signal is not appropriate at this intersection due to its close proximity to adjacent intersection of Mission Boulevard and Harder Road.

Table 16: Traffic Signal Warrants, Cumulative 2035

#	Intersection	Control	Peak Hour	Cumulative 2035	Cumulative 2035 Plus Project
3	Mission Boulevard SW & Torrano Avenue-North	OWSC	AM	Not Met	Not Met
			PM	Not Met	Not Met
4	Mission Boulevard & Torrano Avenue-South	TWSC	AM	Not Met	Not Met
			PM	Not Met	Not Met
5	Dollar Street & Harder Road	TWSC	AM	**Met**	**Met**
			PM	**Met**	**Met**

Based on California MUTCD (2014) Peak Hour Warrant
bold signifies that the warrant is met
Source: Kittelson & Associates, Inc. 2017

5.3.2 Automobile Level of Service

Levels of service (LOS) at the study intersections were evaluated based on the 2000 Highway Capacity Manual methodology, as implemented in the Synchro 8 software package. LOS analysis was performed for the AM and PM peak hours, using forecast turning movement volumes. The future year analysis assumed that signal timings would be unchanged from those in Existing Conditions. Table 17 presents the Cumulative No Project and Cumulative plus Project delays and LOS for the study intersections. Appendix L contains the LOS worksheets.

As shown in Table 17, the following intersections reach LOS F, as follows:

- The westbound approach (worst approach) of Intersection 4 (Mission Boulevard & Torrano Avenue-South) continues to operate at LOS F on the worst approach during both peak hours after the addition of the Project traffic. But since the average delay only increases by 0.4 seconds in the AM peak hour and 0.3 seconds in the PM peak hour, this is not a significant impact. In addition, since the Project is not expected to add any trips to the worst approach, this increase in delay does not result in a significant impact caused by the Project.
- The northbound approach (worst approach) of Intersection 5 (Dollar Street & Harder Road) continues to operate at LOS F during both peak hours with the addition of the Project traffic. But since the average delay only increases by 1.2 seconds in the AM peak hour and 4.6 seconds in the PM peak hour, this is not a significant impact. In addition, since the Project is not expected to add any trips to this approach, this increase in delay does not result in a significant impact caused by the Project. Peak hour signal warrants are met at this intersection during both peak hours; however, City staff may decide that the installation of a signal is not appropriate at this intersection due to its close proximity to adjacent Intersection 6 (Mission Boulevard & Harder Road).
- Intersection 6 (Mission Boulevard & Harder Road) continues to operate at LOS F after the addition of the Project traffic and experiences less than 5.0 seconds increase in delay during both peak hours. Therefore this is not a significant project impact.
- Intersection 7 (Mission Boulevard & Tennyson Road) continues to operate at LOS F after the addition of the Project traffic and experiences less than 5.0 seconds increase in delay during the AM peak hour. Therefore this is not a significant project impact.

All other study intersections continue to operate at LOS E or better during both peak hours with the addition of the Project traffic. The Project does not result in significant impacts at any of the study intersections for the Cumulative Plus Project conditions.

Table 17: Automobile Level of Service, Cumulative 2035

#	Intersection	Control	Peak Hour	Cumulative 2035		Cumulative 2035 Plus Project		Delay Delta (s/veh)
				Delay	LOS	Delay	LOS	
1	Mission Boulevard & Orchard Avenue/ Carlos Bee Boulevard	Signalized	AM	54.4	D	56.6	E	2.2
			PM	56.3	E	56.8	E	0.5
2	Mission Boulevard & Berry Avenue	Signalized	AM	70.0	E	79.9	E	9.9
			PM	21.6	C	24.0	C	2.4
3	Mission Boulevard & Torrano Avenue-North [a]	OWSC	AM	0.1(15.6)	A(C)	0.1(15.5)	A(C)	0.0(-0.1)
			PM	0.1(10.0)	A(B)	0.1(10.4)	A(B)	0.0(0.4)
4	Mission Boulevard & Torrano Avenue-South [b]	TWSC	AM	**1.4(65.8)**	**A(F)**	**1.8(71.4)**	**A(F)**	0.4(5.6)
			PM	**1.6(98.7)**	**A(F)**	**1.9(106.1)**	**A(F)**	0.3(7.4)
5	Dollar Street & Harder Road [c][d]	TWSC	AM	**4.0(54.7)**	**A(F)**	**5.2(77.7)**	**A(F)**	1.2(23.0)
			PM	**10.7(257.1)**	**B(F)**	**15.3(377.1)**	**C(F)**	4.6(120.0)
6	Mission Boulevard & Harder Road	Signalized	AM	**129.1**	**F**	**131.9**	**F**	2.8
			PM	**135.6**	**F**	**140.0**	**F**	4.4
7	Mission Boulevard & Tennyson Road	Signalized	AM	**91.7**	**F**	**93.3**	**F**	1.6
			PM	57.7	E	58.0	E	0.3

LOS based on HCM 2000

bold signifies LOS worse than the target and/or that signal warrants are met

LOS and Control delays for unsignalized intersections are presented for average and (worst approach)

[a] The worst delay at this intersection was reported for the eastbound approach.

[b] The worst delay at this intersection was reported for the westbound approach. No Project trips are added to the westbound approach.

[c] The worst delay at this intersection was reported for the northbound approach. No Project trips are added to the northbound approach.

[d] Peak hour signal warrants are met at this intersection during both peak hours, however, City staff may decide that the installation of a signal is not appropriate at this intersection due to its close proximity to adjacent Intersection 6 (Mission Boulevard & Harder Road).

Source: Kittelson & Associates, Inc. 2017

5.3.3 Queue Storage

The 95th percentile queues at the study intersections were reviewed to identify locations where they may exceed the available storage. Under the Cumulative 2035 scenario, the following movements were found to queue beyond their available storage capacity at the 95th percentile demand level:

- The westbound left-turn movement at the Mission Boulevard & Orchard Avenue/Carlos Bee Boulevard intersection (#1), which was already over capacity in the No Project scenario, continues to spill back beyond the length of its exclusive turn lane. However, the queues do not spill back to adjacent intersections. With the addition of the Project trips, the queue is increased by a maximum of two feet (less than one car) during the peak hour.
- The southbound right-turn at the Mission Boulevard & Orchard Avenue/Carlos Bee Boulevard intersection (#1), which was already over capacity in the No Project scenario, continues to spill beyond their exclusive turn lanes. However, these queues do not spill back to adjacent intersections. No Project trips are added to this movement.

- The southbound left-turn movement at the Mission Boulevard & Berry Avenue intersection (#2), which was already over capacity in the No Project scenario, continues to spill back beyond the length of its exclusive turn pockets. However, these queues do not spill back to adjacent intersections. No Project trips are added to this movement.
- The southbound through movement at the Mission Boulevard & Berry Avenue intersection (#2), which was already over capacity in the No Project scenario, continues to spill back to the Mission Boulevard & Orchard Avenue/Carlos Bee Boulevard intersection (#1). With the addition of the Project trips, the queue is increased by a maximum of eight feet (less than one car) during the peak hour as report by the Synchro 8 software for two cycles.
- The northbound through movement at the Mission Boulevard & Berry Avenue intersection (#2), which was already over capacity in the No Project scenario, continues to spill back to the Mission Boulevard & Torrano Avenue-South intersection (#4). With the addition of the Project trips, the queue is increased by a maximum of 30 feet (less than two cars) during the peak hour as report by the Synchro 8 software for two cycles.
- The addition of proposed Project trips may cause the northbound left-turn at the Mission Boulevard & Berry Avenue intersection (#2) to spill back beyond the length of their exclusive turn pockets. There is a median on Mission Boulevard directly in front of the Project site and at the Mission Boulevard/Torrano Avenue-North intersection (#3) which would limit northbound left-turn access into the Project site. Thus, trips for the hotel portion of the Project have to make a U-turn at Berry Avenue to access the driveway on Mission Boulevard and trips for the residential portion of the Project have to make a left-turn to access the driveway on Berry Avenue. After two cycles however, the maximum 95th percentile queue reported by the Synchro 8 software for this movement does not spill back beyond the length of its exclusive turn pocket. With the addition of the Project trips, the queue is increased by a maximum of 87 feet (approximately four cars) during the peak hour. Due to the center median on Mission Boulevard, the storage length of the northbound left-turn lane may be increased with minimal impact to other modes, should it be needed.
- The eastbound right-turn and westbound left-turn movements at the Mission Boulevard & Harder Road intersection (#6), which were already over capacity in the No Project scenario, continue to spill back beyond the length of its exclusive turn pockets. The eastbound right-turn queues spill back to the Dollar Street & Harder Road intersection (#5) but the westbound left-turn queues do not spill back to the adjacent intersections. Extending the length of the eastbound right-turn lane at this location is not feasible due to the proximity with the intersection of Dollar Street & Harder Road. No Project trips are added to these movements.
- The eastbound left-turn movement at the Mission Boulevard & Harder Road intersection (#6), which was already over capacity in the No Project scenario, continues to spill back beyond the length of its exclusive turn lanes and to the Dollar Street & Harder Road intersection (#5). With the addition of the Project traffic, this queue is increased by a maximum of five feet (less than one car) during the peak hour. Extending the length of turn lanes to accommodate the 95th percentile queues at this location is not feasible due to the proximity with the westbound left-turn lane pocket at the intersection of Dollar Street & Harder Road.

- The southbound through movement at the Mission Boulevard & Tennyson Road intersection (#7), which was already over capacity in the No Project scenario, continues to spill back to the Mission Boulevard & Hancock Street intersection. With the addition of the Project trips, the queue is increased by a maximum of eight feet (less than one car) during the peak hour as report by the Synchro 8 software for two cycles.
- The northbound left-turn, southbound left-turn, and eastbound through and left-turn movements at the Mission Boulevard & Tennyson Road intersection (#7), which were already over capacity in the No Project scenario, continue to spill back beyond the length of their exclusive turn pockets. The eastbound through and left-turn queues spill back to the adjacent intersection of 12th Street & Tennyson Road, however, the northbound left-turn and the southbound left-turn queues do not spill back to adjacent intersections. No Project trips are added to any of these movements.

Appendix L contains the queuing results at all the study intersections. Appendix M tabulates 95th percentile queues at the study intersections for all Cumulative 2035 scenarios.

5.3.4 Pedestrian, Bicycle, and Transit Service

As described in the Pedestrian and Bicycle section (Section 2.1), the Project will encourage pedestrian, bicycle and transit trips with proximity to existing facilities and new planned improvements, bicycle parking and proximity to transit stops on Mission Boulevard. However, according to the Hayward General Plan model, the Proposed Project is not expected to generate a significant number of pedestrian and bicycle trips (less than 10 trips per peak hour per mode). Therefore, no adverse effects to pedestrian or bicycle facilities or level of service are expected as a result of the build-out of the Proposed Project.

Similarly, the Proposed Project will generate less than 10 transit trips in each peak hour, and is not expected to have an adverse impact on transit stops and operations on Mission Boulevard beyond the intersection delays described in detail in Section 5.3.1.

Therefore the impact to existing pedestrian, bicycle and transit facilities would be less-than-significant.

6 CIRCULATION AND PARKING

6.1 SITE REVIEW

This section describes the on-site circulation, access, loading element, emergency vehicle access (EVA) and parking for the Proposed Project site.

6.1.1 Driveways

Internal circulation will be influenced by the location of the Proposed Project's driveways, internal roads and orientation of parking stalls and location of specific tenants. The hotel portion of the Project site will be accessed via a one-way slip lane on Mission Boulevard (right-turn inbound-only driveway in the northeast corner of the Project site and right-turn outbound-only driveway in the southeast corner of the Project site) and a full access driveway on Torrano Avenue. The residential portion of the Project site will be accessed via a full access driveway on Torrano Avenue and a full access driveway on Berry Avenue. The two driveways on Torrano Avenue (one serving the hotel portion of the Project and one serving the residential portion of the Project) are adequately spaced at approximately 150 feet apart. All of the Project driveways provide access for circulation for autos, loading and delivery trucks, waste vehicles and Emergency Vehicles (EVA's). No sight distance or visibility issues were identified at the driveways.

All movements on City streets will remain uncontrolled at the Project driveways. As such, any delay and queuing at the driveway intersections would occur on the Project site and not on City streets. Based on the Cumulative 2035 volumes at the adjacent intersections shown in Figure 12, the volumes on City streets will not cause significant delays or queuing at the Project driveways.

- At the two driveways (Residential and Hotel) on Torrano Avenue, the eastbound left-turning vehicles into the Project site could have a conflict with vehicles traveling in the westbound direction Torrano Avenue. According to the trip distribution identified for the project, a small amount of Project traffic is expected to enter from Dollar Street and thus no dedicated left-turn lane into the Project site in necessary. No impacts are expected at these driveways.
- At the driveway on Berry Avenue, the westbound left-turning vehicles into the Project site could have a conflict with vehicles traveling in the eastbound direction on Berry Avenue. Since the Project driveway is located near the terminus of Berry Avenue and will only be used by some of the residences, the left turning traffic and opposing traffic are very low, so no impacts are expected.

6.1.2 Internal Circulation

The entrance to the one-way slip lane fronting the hotel is provided by an angled inbound-only driveway located on Mission Boulevard at the northeast corner of the hotel site. Inbound vehicles

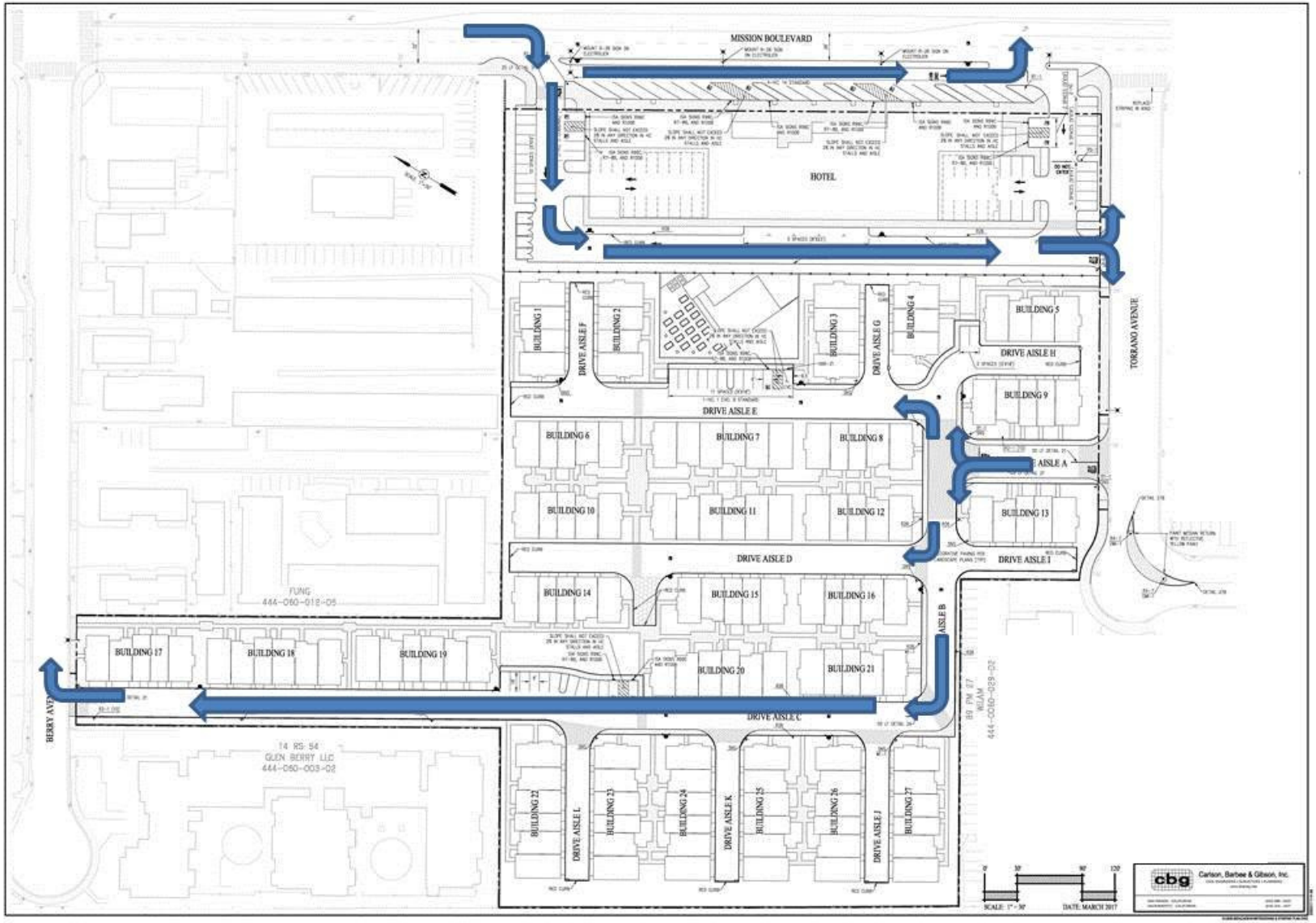
would have the option to travel west in the parking aisle at the north side of the hotel site or travel south in the one-way slip lane. Traveling west would allow vehicular access to the parking areas or the parking aisle to the rear of the hotel building. Traveling south would allow vehicles to pass directly in front of the hotel entrance before reaching the angled outbound-only driveway located on Mission Boulevard at the southeast corner of the hotel site. If vehicles don't exit, they would make a southbound right-turn in the parking aisle at the south side of the Project site where they can circulate to the parking areas and the parking aisle to the rear of the hotel building, or to the driveway on Torrano Avenue. Vehicles entering from the driveway on Torrano Avenue would have the option of traveling northbound in the aisle to the rear of the hotel or eastbound in the aisle at the south side of the hotel site. Vehicles traveling northbound in the aisle to the rear of the hotel would be able to circulate through all the aisles of the hotel portion of the Project. Vehicles traveling eastbound in the aisle at the south end of the Project site would be required to make a left-turn into the underground parking areas. These vehicles would not be able to access Mission Boulevard from the aisle at the south end of the Project site and would need to circulate to the slip lane from the aisle at the north end of the Project side in order to exit onto Mission Boulevard. The location of the driveways and circulation patterns are shown in Figure 13. Project trips accessing all driveways were previously displayed in Figure 6.

The angled parking stalls along the one-way slip lane fronting the hotel portion of the Project are oriented towards the hotel building allowing for easy access and minimized conflicts between automobiles and pedestrians. A potential conflict could occur at the northeast corner of the hotel site, where vehicles entering the Project site at the inbound-only driveway may conflict with vehicles traveling eastbound in the parking aisle at the north side of the Project site (making an eastbound right-turn onto the one-way slip lane. A stop sign should be considered for the eastbound right-turn movement to allow the vehicles entering from Mission Boulevard free-flow access into the Project site. Another potential conflict could occur at the southwest corner of the hotel site, where vehicles entering the Project site at the driveway on Torrano Avenue may conflict with vehicles traveling westbound in the parking aisle at the south side of the Project site. A stop sign should be considered for the westbound movement to allow the vehicles entering from Torrano Avenue free-flow access into the Project site.

The internal circulation for the residential portion is well laid out with adequate access and internal circulation roads. Primary access is provided via a full access driveway on Torrano Avenue and secondary access is provided via a full access driveway on Berry Avenue. Drive aisles provide access to all of the residential buildings and consist of adequate width to accommodate two-way traffic. A potential conflict may occur if vehicles want to turnaround in limited space at the end of the drive aisles, where they would have to make multi-turn maneuvers to make a U-turn. Vehicles circulating in the residential drive aisles may choose to exit from either the driveway on Torrano Avenue or the driveway on Berry Avenue.

The location of the driveways and truck circulation patterns are shown in Figure 13. Project trips accessing all driveways were previously displayed in Figure 6.

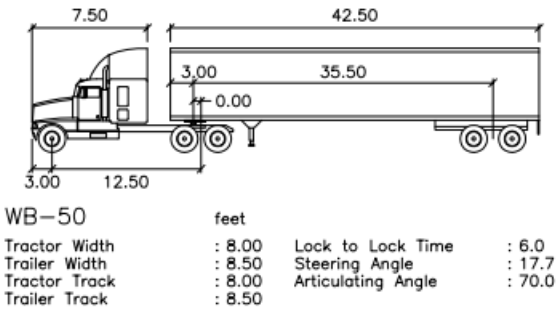
Figure 13: Proposed Site Circulation



6.1.3 Truck Circulation

Trucks will access the hotel site via the right-turn inbound-only driveway on Mission Boulevard in the northeast corner of the hotel site. Delivery truck loading and unloading will primarily occur at the rear of the hotel building. Trucks will enter the right-turn inbound-only driveway on Mission Boulevard in the northeast corner of the hotel site and travel westbound in the parking aisle at the north side of the hotel side. The hotel building does not have truck loading bays, therefore deliveries will need to be scheduled during off-peak hours as the trucks will be required to park in the drive aisle at the rear of the hotel while unloading with hand carts, thus potentially impeding some vehicular access during this procedure.

Figure 14: Schematic of Truck Design Vehicle



The vehicle assumed for this analysis was the AASHTO standard 53-foot design vehicle with a 42.5-foot trailer (WB-50, see Figure 14). For each turning movement at the Proposed Project's driveways, the ability of an AASHTO-standard WB-50 design vehicle to make turns within the existing available pavement was evaluated. Checks were also made to determine if turns can be made without encroaching on adjacent unpaved areas and without encroaching on travel lanes for on-coming traffic. The AutoTURN software package was used to overlay truck turning paths on the site plan to make the determinations. Appendix N presents the AutoTURN exhibits used to make these determinations. As shown in the turning template figures, the hotel portion of the Project adequately accommodates the WB-50 truck's paths.

Deliveries to the residential portion of the Project are expected to be conducted by smaller trucks (similar to FedEx and UPS). Trucks will access the residential portion of the Project via the driveway on Torrano Avenue and circulate through the residential drive aisles. It is expected that delivery trucks will be parking in the drive aisles to load and unload, thus potentially impeding some vehicular access during this procedure.

6.1.4 Waste Pickup

For the hotel portion of the Project, waste pickup will occur at the trash enclosure located at the northwest corner on hotel site. Waste pickup vehicles will enter from the right-turn inbound-only driveway on Mission Boulevard and proceed west to the northwest corner to access the trash enclosure. They will then proceed south in the aisle to the rear of the hotel building and exit from the driveway on Torrano Avenue.

For the residential portion of the Project, waste pickup will occur at the trash enclosures spread out throughout the site. Waste pickup vehicles will enter from the driveway on Torrano Avenue and through the site to the trash enclosures. They will then exit from the driveway on Berry Avenue.

Since the AutoTURN analysis shows that the site plan will accommodate the larger WB-50 trucks, the site plan will also accommodate the smaller trash trucks.

6.1.5 Emergency Vehicle Access

Emergency vehicles (EVA) including fire trucks and ambulances will be able to access the hotel portion of the Project through the right-turn inbound-only driveway on Mission Boulevard at the northeast corner of the hotel site. These vehicles will be able to circulate to the slip lane in front of the hotel building as well as circulate to the rest of the surface drive aisle. Fire trucks will not be able to circulate to the underground parking areas.

EVAs including fire trucks and ambulances will be able to access the residential portion of the Project through driveway on Torrano Avenue or through the driveway on Berry Avenue. These vehicles will be able to circulate to all the residential buildings through the drive aisles.

As with large delivery trucks, WB-50 trucks were used to portray large fire trucks common in the City of Hayward EVA turning templates were reviewed using AutoTURN software to ensure the EVAs can manage the turning radii. The AutoTURN analysis shown in the Appendix N indicates that the site plan will be able to adequately accommodate all EVAs.

6.1.6 Pedestrian Access

The site has provided pedestrian paths surrounding the hotel building. These pedestrian paths should be connected to sidewalks on Mission Boulevard through cross walks across parking aisles. Pedestrians in the residential section of the Project site would utilize the sides of the drive aisles. Crosswalks should be provided to connect to sidewalks on Torrano Avenue and Berry Avenue and adequate signage should be provided to warn drivers of crosswalk locations. Except for sideway access, there is no pedestrian connection between the hotel and residential portions of the Project.

6.1.7 Traffic Calming

The City has requested the Project sponsor to consider traffic calming measures on Torrano Avenue and Dollar Street to address high speed turns at the corner where the two street connect (directly south of the Project). As shown on the site pan in Figure 5, a raised median has been proposed to limit the amount of empty space in the corner that currently allows the high speed maneuvers. Additionally, it is recommended that additional speed limit signage be added on both Torrano Avenue and Dollar Street to address new land uses and driveways. In addition, it is recommended to add

caution signage, and striped median extension to better identify the new driveway locations on Torrano Avenue and Berry Avenue from the Project.

6.2 PARKING INVENTORY

The hotel and retail portion of the proposed Project allows for a total of 83 parking spaces and the residential portion of the proposed Project allows for a total of 305 parking spaces. Based on the City's Form-Based Code, there is no minimum off-street automobile parking requirement for non-residential uses and the 305 residential spaces exceed the 297 required by City code. Based on this, the Proposed Project has provided more than adequate parking for the site. Bicycle spaces will be spread out around the Project site (hotel/retail and residential portions) with a majority of them located around the Urban Farm (Landscape plan L.8 shows common area bicycle parking as does Landscape plan L.7 for the retail/hotel). Further, residents of the townhome portion of the Project will be able to store bicycles in their private garages. For the location of the Project site, the City's Form-Based Code requires seven short-term (140 units x 0.05 spaces per bedroom) and 21 long-term bicycle spaces (140 units x 0.15 spaces per bedroom).Mitigations

7 MITIGATIONS

The traffic generated by the proposed Project is not expected to result in any significant impacts to the study intersections that exceed City thresholds. Therefore, no mitigation measures have been identified.

Based on the queuing analysis and observations of the simulation model (prepared in the SimTraffic software), the addition of the northbound left-turning and U-turning Project trips at the Mission Boulevard & Berry Avenue intersection (#2) is not expected to cause the queues in the northbound left-turn to spill back beyond the length of its exclusive turn pocket of 250 feet. As such, an extension of the northbound left-turn lane is not required by the addition of the Project.

The intersection of Dollar Street & Harder Road (#5) triggered a peak hour signal warrant with and without the addition of Project trips. As such, the need for a signal at this location is not created solely by the Project traffic. Further, City staff may decide that the installation of a signal is not appropriate at this intersection due to its close proximity to adjacent intersection of Mission Boulevard & Harder Road. Should the City decide to implement a signal at that location, the Applicant will contribute a fair share portion based on the project traffic. As part of planned improvements by the Kaufman and Broad Residential development, assumed as part of the Background 2020 and Cumulative 2035 analysis, the southbound approach will be converted to a 100-foot left-turn lane and a shared through/right-turn lane. No additional improvements are necessary or feasible.

8 CONGESTION MANAGEMENT PROGRAM

Land uses with similar trip generation were included as part of the Form-Based Code in the Mission Boulevard Specific Plan that was cleared environmentally at a Programmatic Level in 2012. During that study, a CMP analysis was conducted at the roadway segment level to satisfy the Land Use Analysis Program required by the Alameda CTC. Roadways nearby the Project included Mission Boulevard, Foothill Boulevard, Jackson Street, Harder Road, Tennyson Road, Industrial Parkway and Winton Road. The 2012 Specific Plan analysis included land uses for the full extent of the Mission Boulevard Specific Plan, of which 25501 Mission Boulevard (The Project) was a small part of. The CMP analysis did not find any regional impacts to MTS and CMP roadways for 2020 and 2035 conditions for the full Specific Plan. Therefore, it is not expected that the Project would incur any new significant impacts to MTS and CMP roadway segments and transit facilities.

APPENDIX A: TRAFFIC SIGNAL TIMING SHEETS

APPENDIX B: TRAFFIC COUNTS

APPENDIX C: PROPOSED PROJECT TRIP GENERATION

APPENDIX D: EXISTING TRAFFIC SIGNAL WARRANT CALCULATIONS

APPENDIX E: EXISTING LEVEL OF SERVICE AND QUEUING CALCULATIONS

APPENDIX F: EXISTING QUEUING SUMMARY

APPENDIX G: BACKGROUND 2020 TRAFFIC SIGNAL WARRANT WORKSHEETS

APPENDIX H: BACKGROUND 2020 LEVEL OF SERVICE AND QUEUING CALCULATIONS

APPENDIX I: BACKGROUND 2020 QUEUING SUMMARY

APPENDIX J: CUMULATIVE 2035 MODEL ADJUSTMENTS

APPENDIX K: CUMULATIVE 2035 TRAFFIC SIGNAL WARRANT CALCULATIONS

APPENDIX L: CUMULATIVE 2035 LEVEL OF SERVICE AND QUEUING CALCULATIONS

APPENDIX M: CUMULATIVE 2035 QUEUING SUMMARY

APPENDIX N: LOADING TRUCK, WASTE DISPOSAL AND EVA TRUCK TURNING TEMPLATES