City of Sunnyvale

777 Sunnyvale-Saratoga Road
Draft Initial Study and Mitigated Negative Declaration

Prepared by
City of Sunnyvale
Community Development Department
456 West Olive Avenue
Sunnyvale, California 94086
July 2016

Prepared by
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Initial Study

Background & Project Description

Project Title

777 Sunnyvale-Saratoga Road, 2015-7399

Lead Agency Name and Address

City of Sunnyvale
Community Development Department
456 West Olive Avenue
Sunnyvale, California 94086

Contact Person and Phone Number

Ryan Kuchenig
(408) 730-7431

Project Location

The project is located on a 5.22-acre site at 777 Sunnyvale-Saratoga Road within the City of Sunnyvale in Santa Clara County (Assessor's Parcel Number: 201-36-002). Please see Figure 1: *Regional Map* and Figure 2: *Vicinity Map*

Project Sponsor

Ware Malcomb
2400 Camino Ramon, Suite 390,
San Ramon, California 94583

General Plan Designation

Commercial General Business

Zoning

C-2/ECR: Highway Business /El Camino Real Precise Plan

Project Setting

The project site is an existing commercial site currently occupied by an existing Orchard Supply Hardware (OSH) building and parking area. The site was formerly used for orchards but has been developed for warehouse, retail, and parking uses since the late 1960s. Vehicular access to the site includes a right-in, right-out driveway off of South Mathilda Avenue and a secondary access from Sunnyvale-Saratoga Road. The entire site has been previously developed, as have the surrounding properties. The project site is surrounded by South Mathilda Avenue on the west, the Cherry Orchard Apartment Complex and the West Sunnyvale Shopping Center to the north, Sunnyvale-Saratoga Road to the east, and the Fall River Terrace Apartment Complex to the south.

Project Background

The existing OSH building includes a hardware and nursery/garden building and customer pick-up building on the site. An outdoor storage area is located adjacent to the pick-up building. The nursery/garden center use for OSH (western portion of site) would remain. The main OSH building and nursery area have been recently completed for interior and exterior improvements that were authorized under a separate permit.

Project Description

The project proposes a grocery retail business with a customer waiting area and pick-up location for retrieving purchased items at the arranged time. Customers would pre-order their grocery and retail items on the store's website prior to coming to the store to pick-up their order. When placing an order, customers will have the option of scheduling a specific 15 minute to 2-hour time-frame for pick-up. Upon arriving at the store within their pre-scheduled pick-up window, customers arriving in cars can drive into a designated pick-up area with nine parking stalls, where the purchased items will be delivered to their cars. Customers arriving on foot or bicycle can pick-up their items within the store. Hours of operation are proposed to be daily from 7 a.m. to 10 p.m. A total of 15 employees would work on-site at any given time. Employees on-site would direct customers into their assigned parking spaces. To avoid idling vehicles, customers that arrive outside of their assigned times will be directed to the main parking lot.

The proposed 11,600 square-foot grocery retail building would be located adjacent to the main OSH building in roughly the same location as the existing pick-up building. Approximately 6,100 square feet of the existing OSH building, an area currently used as a customer pick-up area, would be demolished. As a result of the demolition and new building, approximately 5,500 net new building square feet would be added to the site. In addition to the new building, a carport covering nine spaces would be located between the new building and Sunnyvale-Saratoga Road. The carport is intended as a pick-up area for customers of the new retail use. The 5.22-acre project site is inclusive of the existing Orchard Supply building and the proposed 11,600 square-foot grocery retail building that will replace the 6,100 square-foot customer pick-up facility. The proposed development would be located in the eastern portion of the site, with a development footprint of approximately 1.56 acres. Please see Figure 3: *Site Plan* and Figure 4: *Project Rendering*.

The entire property (OSH and proposed project) maintains three vehicular driveways along Sunnyvale-Saratoga Road and two driveways off South Mathilda Avenue. The parking and circulation at the eastern end of the site would be modified to accommodate the new grocery store pick-up area.

A one-way drive-aisle loop would be created for customers planning to park in the designated pick-up areas under a carport. A 10-foot, six-inch clearance bar would be installed between the building and carport to prevent large trucks from entering this area. This loop drive aisle is not required for fire access.

The project would maintain the drive aisle that extends along the north edge of the property. However, access to the drive aisle would be limited to the Sunnyvale Shopping Center to the north and from the western end of the OSH building. A new trash enclosure attached to the proposed grocery store building is planned along the north side of the building, which can be accessed by the drive aisle. Public improvements include upgrades to the driveway entrances, fire hydrant, and street lights adjacent to the project site.

Parking

Currently, the OSH site is legal non-conforming because there are 289 parking spaces, which exceeds Municipal Code requirements of a maximum of 267 spaces. The proposed parking for the project site would be reconfigured from the existing parking layout. The proposed project reduces overall parking by approximately 55 spaces but still meets parking requirements with 252 spaces provided, where a minimum of 234 and a maximum of 292 are allowed for the combined OSH and new retail building. The proposal would upgrade bicycle parking to meet the required number of Class I and Class II spaces. A total of 15 bicycle spaces are required for the combined retail uses on site. The project proposes secured spaces will be provided inside the buildings and that three spaces will be in front of the new building.

Landscaping

As a legal non-conforming use, the OSH site currently does not meet the 20% requirement for total landscaping or the 50% parking lot shading requirement. The project would increase the landscaping in the parking for the existing OSH by adding three new planters with large shade trees and expanding two Landscaping for the site is increased from landscaping an existing amount to 17% of the 1.5-acre site. Proposed tree shading in the parking area of the 1.56-acre site will be 50%. Overall on the site, landscaping increased from 20,463 SF to 33,027 SF which is an increase from 9% to 14.5%. Tree shading is increased to 29% for the OSH site from 10%. No tree removals are proposed with this project. Please see Figure 6: *Landscape Plan*.

A pedestrian walkway (combination sidewalk and striped paving) that lies in front of the buildings on the site and the main corner entrance of the building connects to the public sidewalk along Sunnyvale-Saratoga Road. The landscape buffer adjacent to Sunnyvale-Saratoga Road would be widened as it extends southward.

Architecture

The proposed commercial building utilizes modern architectural design with a combination of projecting walls composed of wood siding and recessed façades of grey plaster finish. A random pattern of bright green panels are interspersed within the siding to break up the facade. Green canvas awnings over the corner entrance are also provided. Storefront windows are located at the corner of the building and at a portion of the east elevation. Some minor improvements have been added to the façade since earlier designs, including a location for a future display window along the south elevation and possible additional window locations.

The carport which shelters the pick-up/loading spaces for patrons is designed with a steel "butterfly roof" structure that angles upward from the middle. The structure incorporates a combination of translucent yellow and green panels that are visible underneath the canopy. A roofed pedestrian walkway runs across the drive aisle from the carport to the new building.

Green Building

Green building standards require non-residential construction that exceeds 5,000 square feet to attain LEED Silver level design intent. The proposal indicates compliance by indicating that 50 LEED points will be achieved where a minimum of 50 points are required.

Stormwater Management

The Municipal Regional Permit for stormwater discharge requires all treatment be achieved through Low Impact Development (LID) measures such as infiltration, harvesting/use, and bio-filtration and limits the use of mechanical treatment. A preliminary Stormwater Management Plan (SWMP) has been provided, which demonstrates compliance through site design, source controls and bio-retention. A third-party certification of a final SWMP is required prior to issuance of building permits.

Project Permits and Approvals

Matrix of Project Approvals

Permit / Approvals	Approving Agency
Special Development Permit	City of Sunnyvale
Grading Permit	City of Sunnyvale
Building Permit	City of Sunnyvale

Other public agencies whose approval is required

None.

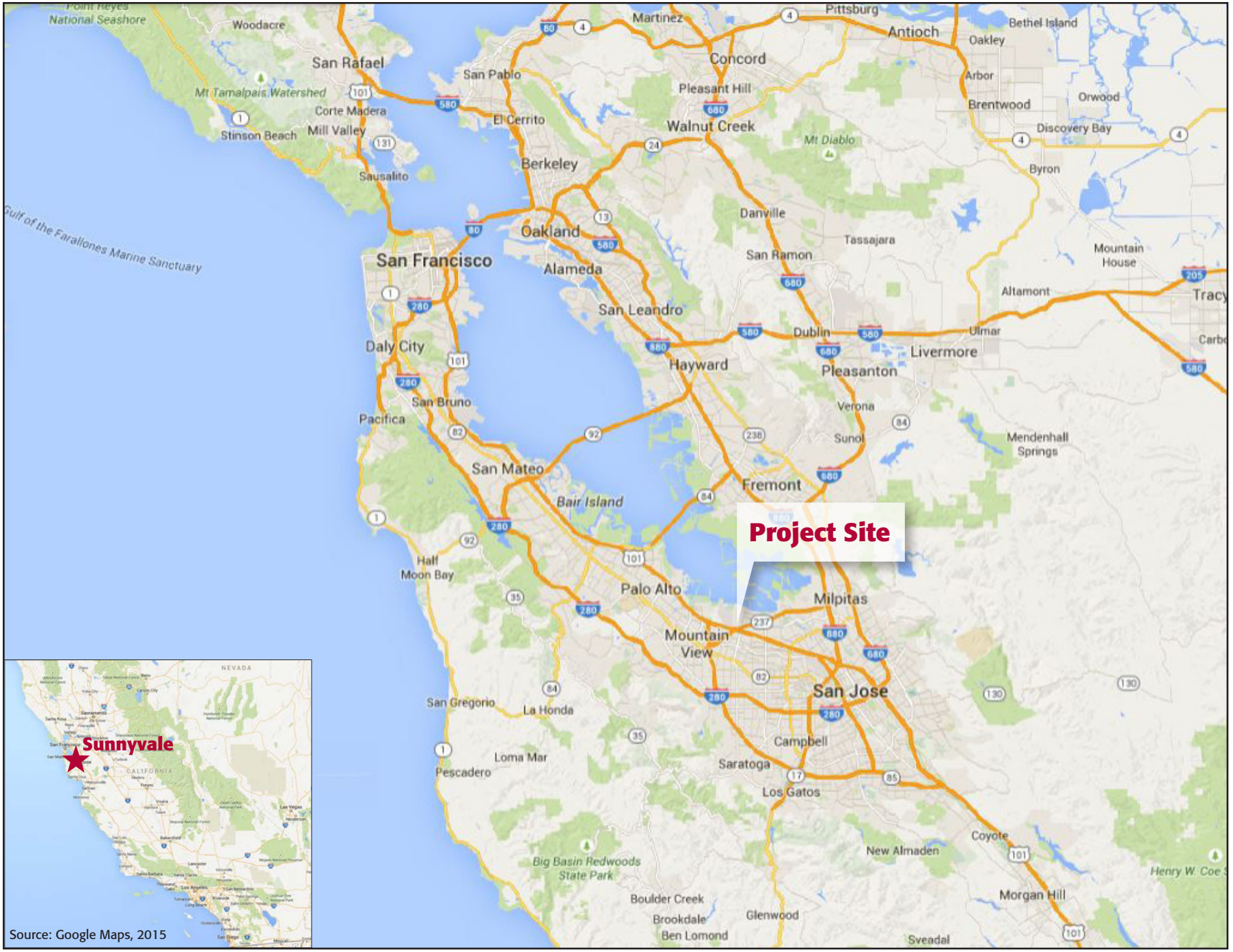


FIGURE 1: Regional Map
777 Sunnyvale-Saratoga Road
City of Sunnyvale

Not to scale

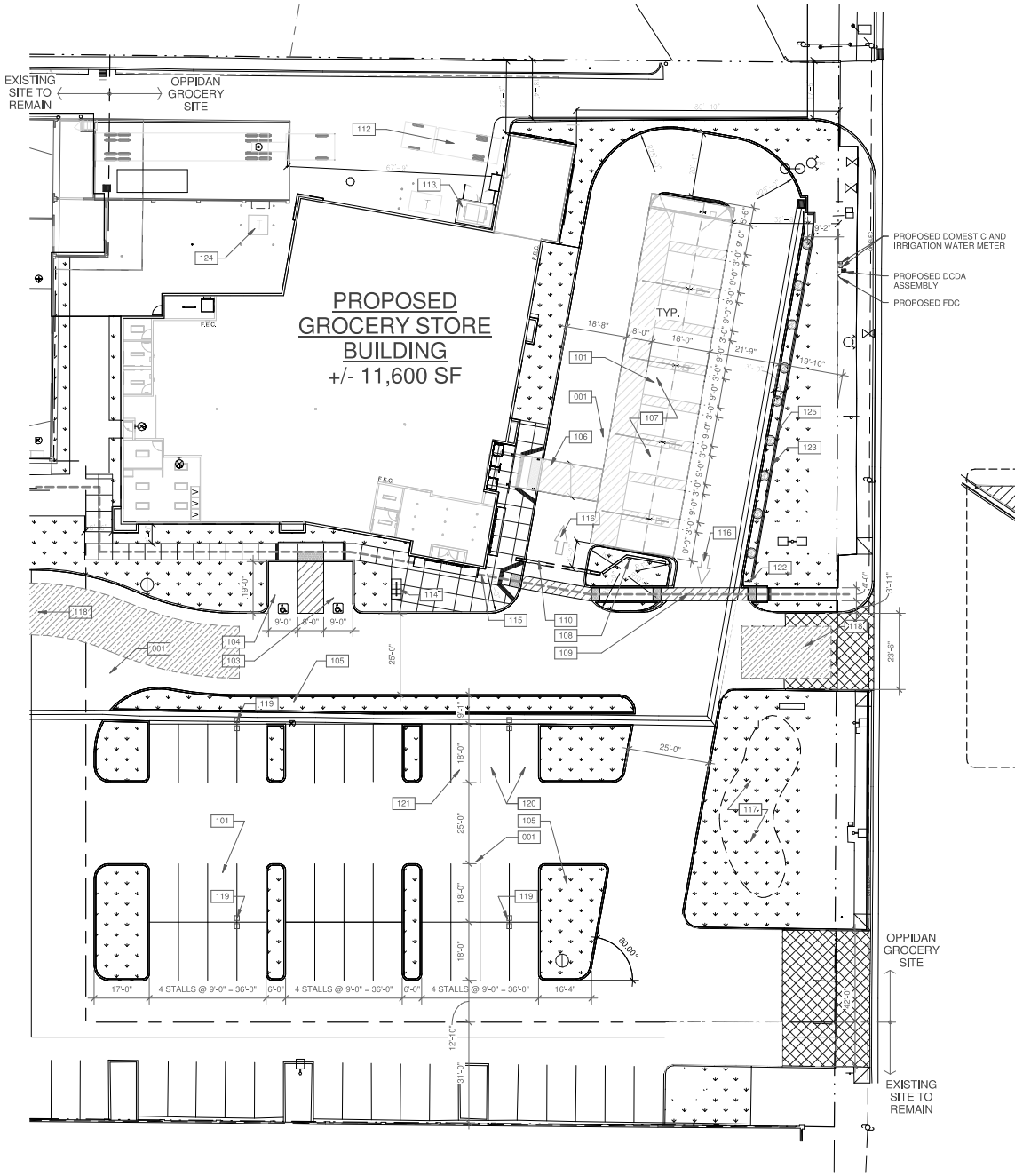
Kimley»Horn

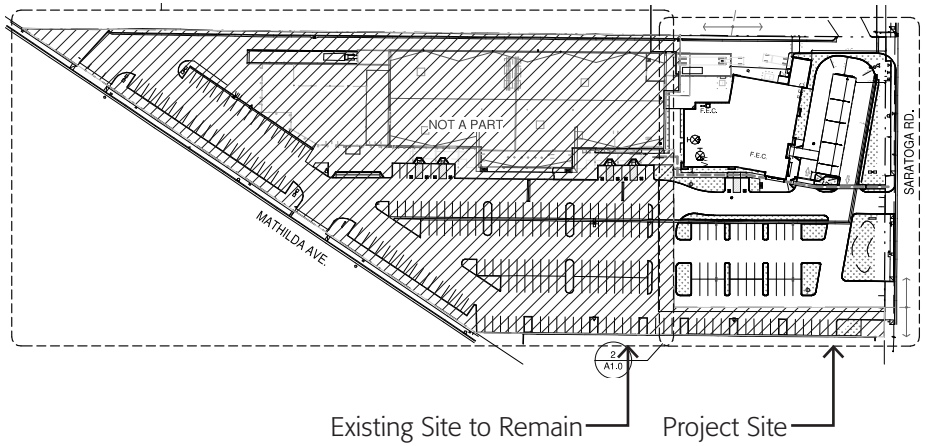
Source: Google Earth, 2015

FIGURE 2: Vicinity Map
777 Sunnyvale-Saratoga Road
City of Sunnyvale

Not to scale

Kimley»Horn





Source: Ware Malcomb, 2015

FIGURE 3: Site Plan
777 Sunnyvale-Saratoga Road
City of Sunnyvale

Not to scale

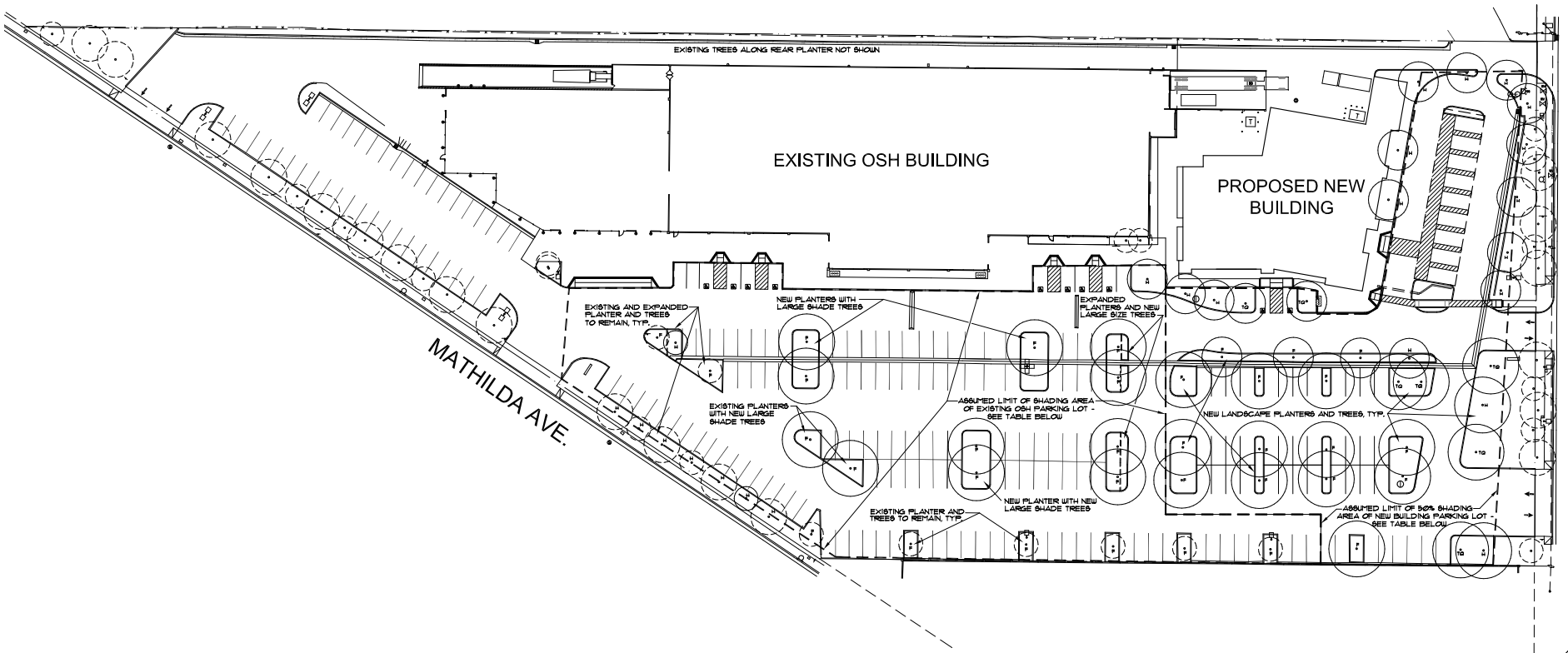
Kimley»Horn

Source: Ware Malcomb, 2015

FIGURE 4: Project Rendering
777 Sunnyvale-Saratoga Road
City of Sunnyvale

Not to scale

Kimley»Horn



PARKING LOT SHADE CALCULATION TABLE - PORTION OF EXISTING OSH PARKING LOT

KEY	BOTANICAL/COMMON NAME	CROWN DIAMETER	"F" = FULL (SF.)	"TQ" = THREE QUARTER (SF.)	"H" = HALF (SF.)	"Q" = QUARTER (SF.)
-	NEW AND EXISTING LARGE TREES	35'	11 @ 962 = 10,582	-	-	-
-	NEW AND EXISTING MEDIUM TREES	30'	-	-	5 @ 353 = 1,765	-
-	NEW AND EXISTING SMALL TREES	25'	5 @ 490 = 3,920	-	4 @ 245 = 980	-

TOTAL ASSUMED PARKING LOT AREA AS OUTLINED ABOVE — 59,260 SF.
TOTAL TREE SHADED AREA PER THE ABOVE TABLE — 17,247 SF. = 29.1%

PERCENT OF PERVIOUS TO IMPERVIOUS AREA CHANGE FOR THE ASSUMED PARKING LOT AREA AS OUTLINED ABOVE WITH NEWLY PROPOSED PLANTERS AS SHOWN

EXISTING PERVIOUS (LANDSCAPE) PERCENTAGE — 5.4%
PROPOSED PERVIOUS (LANDSCAPE) PERCENTAGE — 10.2% - 88% INCREASE

PARKING LOT SHADE CALCULATION TABLE - NEW BUILDING PARKING LOT

KEY	BOTANICAL/COMMON NAME	CROWN DIAMETER	"F" = FULL (SF.)	"TQ" = THREE QUARTER (SF.)	"H" = HALF (SF.)	"Q" = QUARTER (SF.)
T1	PLATANUS ACERIFOLIA 'COLUMBIA' — LONDON PLANE TREE	35'	12 @ 962 = 11,544	5 @ 722 = 3,610	2 @ 481 = 962	-
T2	PRUNUS C. 'KRAUTER VESUVIUS' — PURPLE-LEAF PLUM	25'	3 @ 490 = 1,470	2 @ 368 = 736	13 @ 245 = 3,185	-

TOTAL ASSUMED PARKING LOT AREA AS OUTLINED ABOVE — 42,327 SF.
TOTAL TREE SHADED AREA PER THE ABOVE TABLE — 21,931 SF. = 50.8%

Source: Wilson & Associates, 2016

FIGURE 5: Landscape Plan
777 Sunnyvale-Saratoga Road
City of Sunnyvale

Not to scale

Kimley»Horn

Environmental Checklist

Environmental Factors Potentially Affected by the Project

The environmental factors checked below would be potentially affected by this project, involving impacts identified as "Less Than Significant With Mitigation Incorporated" as indicated by the checklist on the following pages.

	Aesthetics		Agricultural Resources	X	Air Quality
X	Biological Resources	X	Cultural Resources	X	Geology / Soils
	Greenhouse Gas Emissions	X	Hazards & Hazardous Materials		Hydrology / Water Quality
	Land Use / Planning		Mineral Resources	X	Noise
	Population / Housing		Public Services		Recreation
	Transportation / Traffic		Utilities / Service Systems		Mandatory Findings of Significance

Determination

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	
I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.	X
I find that the proposed project MAY have a significant effect on the environment and an ENVIRONMENTAL IMPACT REPORT is required.	
I find that the proposed project MAY have a potentially significant or a potentially significant unless mitigated impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.	
I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.	

Ryan Kuchenig, Project Planner

7/28/16
Date

Explanation of Environmental Checklist Responses

Aesthetics

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
1. AESTHETICS. Would the project:				
a) Have a substantial adverse effect on a scenic vista?			X	
b) Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c) Substantially degrade the existing visual character or quality of the site and its surroundings?			X	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			X	

(a) Scenic vista

Less Than Significant Impact. A scenic vista is generally described as a clear, expansive view of significant regional features possessing visual and aesthetic qualities of value to the community. There are no designated scenic vistas in the vicinity of the project site and the Project site and surrounding area are not characterized as a scenic vista. The project site is located in an urban area planned for commercial uses, on a property that has already been developed for commercial uses. As such potential impacts on a scenic vista are considered less than significant.

(b) Scenic resources

No Impact. No scenic resources such as historic buildings or rock outcroppings occur on the Project site. In addition, the Project site is not located within close proximity to a state designated scenic highway. According to the California State Scenic Highway Program, there are no State-designated scenic highways within or adjacent to the City[1]. Therefore, the proposed

[1] California Department of Transportation website, Officially Designated State Scenic Highways, http://www.dot.ca.gov/hq/LandArch /scenic/schwy.htm, accessed February 14, 2013.

project would not affect scenic vistas or resources, including but not limited to trees, rock outcroppings, or historic buildings, within a State-designated scenic highway.

(c) Visual Character

Less Than Significant Impact. The proposed project would not substantially degrade the existing visual character or quality of the site or it surroundings, because the proposed grocery store use would be similar to existing retail development in the surrounding area. The project does not propose significant amounts of grading or landform alterations, incompatible uses, noise walls, substantial retaining walls, or significant vegetative clearing that could have the effect of changing the visual character of the project site or the surrounding area.

The proposed project would result in a change in the site appearance from a single OSH building to a OSH building with a grocery store added on to the east end of the building. The proposed development on the project site would be consistent with the existing development pattern in the area, which includes existing commercial retail and multi-family residential development. Therefore, potential impacts on visual character or quality is considered less than significant.

(d) Create a new source of substantial light or glare

Less Than Significant Impact. The project site currently generates light and glare from indoor and outdoor lighting, security lighting, and parking lot lighting. Sunlight that is reflected off of reflective building surfaces (windows, aluminum siding, etc.), equipment, and vehicles also generates glare from the project site and its surroundings. The proposed project would be required to have some outdoor lighting for nighttime use and security purposes. All lighting plans, including photometric studies are reviewed and approved by the Director of Community Development, prior to the issuance of a building permit. The lighting plans must show conformance with Section 19.42.050 of the Sunnyvale Municipal Code which regulates exterior lighting. Exterior lights must be shielded to prevent any glare or direct illumination on any public street or other property. For these reason potential impacts from light and glare are considered less than significant.

Aesthetics Cumulative Impacts

The proposed project would be consistent with the land use and development regulations contained in the City of Sunnyvale General Plan. No other past, present, or reasonably foreseeable projects within the surrounding area have been identified that would cumulatively create significant adverse impact with regard to aesthetics or visual resources. While the proposed project plus any cumulative development could change the appearance of the area, no adverse impacts are identified and aesthetic impacts related to the proposed project are not expected to be cumulatively considerable. Therefore, no additional adverse cumulative aesthetic impacts would occur and potential impacts and are considered less than cumulatively considerable.

Agriculture and Forestry Resources

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
2. AGRICULTURE RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. 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?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
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))?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
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?				X

(a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (farmland)

No impact. The City of Sunnyvale does not contain any prime farmland. The project site does not currently support any agricultural activities. No Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) has been mapped on the project site. As such,

the proposed project would have no impact on any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. No mitigation is required.

(b) Conflict with existing zoning for agricultural use or a William Act contract

No impact. The City of Sunnyvale does not contain any land that is zoned for agricultural use nor are there any lands under an active Williamson Act contract. Therefore, no conflicts exist in regards to zoning for agricultural use. As such, development of the proposed project would not conflict with either existing zoning for agricultural use or with lands under Williamson Act Contract, and therefore no impact would occur. No mitigation is required.

(c) Conflict with existing zoning for forest land

No impact. The City of Sunnyvale does not contain any land that is zoned for forest land or is protected under the Timberland Production zone. No forest land exists within or adjacent to the proposed project site. As such, there is no existing zoning for, or a cause for 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)) on the project site. Therefore, no impacts to forest land would occur and no mitigation is required.

(d) Result in the loss of forest land

No impact. No forest land occurs within or adjacent to the proposed project site. The proposed project site is zoned for commercial uses. No loss or conversion of forest land to non-forest use would occur. No mitigation is required.

(e) Involve other changes resulting in a conversion of farmland or forest land

No impact. The City of Sunnyvale does not contain any farmland. Development of the proposed project would not result in the conversion of any Farmland to urban uses. The project site is currently developed with the existing OSH store and parking areas. Given both the nature and location of the proposed project, conversion of land from Farmland or conversion of forest land to non-forest use would not occur. No impact would result, and thus, no mitigation is required.

Agricultural and Forest Resources Cumulative Impacts

There are no areas of specially designated farmland, Williamson Act lands, or forest lands within the project area, and thus no corresponding areas on the project site. Therefore, there are no cumulative agricultural or forest land impacts and no mitigation is required.

Air Quality

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
3. 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?			X	
b) Violate any air quality standard or contribute to an existing or projected air quality violation?		X		
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)?			X	
d) Expose sensitive receptors to substantial pollutant concentrations?			X	
e) Create objectionable odors affecting a substantial number of people?			X	

(a) Consistent with air quality plans

Less Than Significant Impact. The project site is in the City of Sunnyvale, which is located within the San Francisco Bay Area Air Basin (SFBAAB). The Bay Area Air Quality Management District (BAAQMD) is responsible for assuring that the Federal and California Ambient Air Quality Standards are attained and maintained in the SFBAAB. The SFBAAB exceeds the state air quality standards for ozone (O_3) and particulate matter (PM_{10}, and $PM_{2.5}$). The area is designated nonattainment for national standards of 8-hour ozone, 24-hour $PM_{2.5}$, and state standards for 24-hour and annual PM_{10}, and annual $PM_{2.5}$. [2]

The 2010 Clean Air Plan, the regional air quality management plan for the SFBAAB, accounts for projections of population growth provided by the Association of Bay Area Governments (ABAG) and vehicle miles traveled provided by the Metropolitan Transportation Commission (MTC), and it identifies strategies to bring regional emissions into compliance with federal and state air

[2] BAAQMD. 2015. Air Quality Standards and Attainment Status. Website: http://www.baaqmd.gov/research-and-data/air-quality-standards-and-attainment-status. Accessed: November 2, 2015.

quality standards. BAAQMD encourages local jurisdictions to include General Plan policies or elements that, when implemented, would improve air quality. Although air quality elements are not mandated, general plans are required to be consistent with any air quality policies and programs that exist within that jurisdiction.

For projects, the determination of a significant cumulative air quality impact should be based on the consistency of the project with the Bay Area's most recently adopted Clean Air Plan. A project would be consistent with the 2010 Clean Air Plan if the project would not exceed the growth assumptions in the plan. The primary method of determining consistency with the 2010 Clean Air Plan growth assumptions is consistency with the General Plan land use designations and zoning ordinance zoning designations for the site. If the General Plan growth forecast was adopted prior to the adoption of the 2010 Clean Air Plan, then it can be assumed that the 2010 Clean Air Plan incorporates the growth forecast from the General Plan.

The Clean Air Plan assumptions for projected air emissions and pollutants in Sunnyvale are based on the land use and development projection assumptions in the Sunnyvale General Plan (General Plan). The project site is currently has a land use designation of Commercial General Business (CGB) and zoned Commercial – Highway Business Zoning District/El Camino Real Combining District (C-2/ECR). The proposed grocery retail business would be consistent with the City's land use and zoning designations and growth assumption projected in the General Plan. As such, the proposed project would not significantly affect regional vehicle miles traveled pursuant to the CEQA Guidelines (Section 15206) because of its consistency with adopted land use plans in the City of Sunnyvale. In addition, the proposed project would not have the potential to exceed the level of population or housing foreseen in regional planning efforts.

As described below in Impact Statements III(b) and III(c), construction and operational air quality emissions generated by the proposed project would not exceed the BAAQMD's emissions thresholds. These thresholds are established to identify projects that have the potential to generate a substantial amount of criteria air pollutants. Because the proposed project would not exceed these thresholds, the proposed project would not be considered by the BAAQMD to be a substantial emitter of criteria air pollutants, and would not contribute to any non-attainment areas in the SFBAAB. Therefore, the project would be in compliance with the Clean Air Plan and impacts would be less than significant.

(b) Air quality standards

Less Than Significant With Mitigation Incorporated. Short-term air quality impacts are predicted to occur during grading and construction activities associated with implementation of the proposed project. Temporary air emissions would result from the following activities:

- Particulate (fugitive dust) emissions from demolition, grading, and building construction activities; and
- Exhaust emissions from the construction equipment and the motor vehicles of the construction crew.

Total Daily Construction Emissions

Construction activities would include demolition, grading, building construction, paving, and application of architectural coatings. Project construction equipment would include concrete/industrial saws, rubber tired dozers, and tractors/loaders/backhoes during demolition; graders and rubber tired dozers during grading; generator sets, cranes, forklifts, tractors/loaders/backhoes, and welders during building construction; cement and mortar mixers, pavers, rollers, tractors/loaders/backhoes, and paving equipment during paving; and air compressors during architectural coating. Emissions for each construction phase have been quantified based upon the phase durations and equipment types. The analysis of daily construction emissions has been prepared utilizing the California Emissions Estimator Model (CalEEMod). Refer to Appendix A, Air Quality Study, for the CalEEMod outputs and results. Table 1: Maximum Daily Construction Emissions, presents the anticipated daily short-term construction emissions.

As seen in Table 1, unmitigated emissions would exceed significance thresholds; therefore, a potentially significant impact would occur with regard to construction emissions without mitigation.

Table 1 – Maximum Daily Construction Emissions

Emissions Source	Pollutant (pounds/day)[1]			
	ROG	NO_X	PM_{10}	$PM_{2.5}$
Construction Year				
2016	6. 7	71.8	14	8.9
2017	10.9	2.2	0.2	0.2
BAAQMD Thresholds[2]	54	54	82	54
Is Threshold Exceeded After Mitigation?	**No**	**Yes**	**No**	**No**

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

Notes:
1. Emissions were calculated using CalEEMod.
2. Bay Area Air Quality Management District, California Environmental Quality Act Air Quality Guidelines, updated May 2011.

Source: Rincon, Oppidan Online Ordering Grocery Store Project Air Quality Study, June 2016.

Fugitive Dust Emissions

Construction activities are a source of fugitive dust (also known as PM_{10} and $PM_{2.5}$) emissions that may have a substantial, temporary impact on local air quality. Fugitive dust is often a nuisance to those living and working within the vicinity of the project site. Fugitive dust emissions are associated with demolition, land clearing, ground excavation, cut and fill operations, and truck travel on unpaved roadways. Fugitive dust emissions also vary substantially from day to day, depending on the level of activity, the specific operations, and weather conditions.

PM_{10} and $PM_{2.5}$ are both emitted during construction activities and as a result of wind erosion over exposed soil surfaces. Clearing and grading activities comprise the major sources of construction dust emissions, but traffic and general disturbance of the soil also generates significant dust emissions. PM_{10} and $PM_{2.5}$ emissions can vary greatly depending on the level of activity, the specific operations taking place, the equipment being operated, local soils, weather conditions, and other factors making quantification difficult. The highest potential for construction dust impacts would occur during the late spring, summer, and early fall months when soils are dry. Despite this variability in emissions, experience has shown that there are a number of feasible control measures that can be reasonably implemented to significantly reduce PM_{10} and $PM_{2.5}$ emissions from construction activities. BAAQMD considers fugitive dust emissions to be significant without implementation of Basic Construction Mitigation Measures. Mitigation Measure AQ-1 would reduce this potential impact to less than significant.

ROG Emissions[3]

In addition to gaseous and particulate emissions, the application of asphalt and surface coatings creates reactive organic gases (ROG), which are O_3 precursors. In accordance with the methodology prescribed by the BAAQMD, the ROG emissions associated with paving have been quantified with CalEEMod. Architectural coatings were also quantified with CalEEMod based upon the size of the building. As indicated in Table 1, the project would result in a maximum of 16.16 lbs/day of ROG emissions during construction activities. As such, construction ROG emissions would not exceed the BAAQMD threshold of 54 lbs/day. Therefore, a less than significant impact would occur with regard to ROG emissions. It should be noted that all Basic Construction Mitigation Measures would be implemented during construction to further reduce ROG emissions; refer to Mitigation Measure AQ-1.

Construction Equipment and Worker Vehicle Exhaust

Exhaust emission factors for typical diesel-powered heavy equipment are based on the CalEEMod program defaults. Variables factored into estimating the total construction emissions include: level of activity, length of construction period, number of pieces/types of equipment in use, site characteristics, weather conditions, number of construction personnel, and the amount of materials to be transported on-site or offsite.

Exhaust emissions from construction activities include emissions associated with the transport of machinery and supplies to and from the project site, emissions produced on-site as the equipment is used, and emissions from trucks transporting materials and workers to and from the site. Emitted pollutants would include ROG, nitrogen oxides (NO_X), PM_{10}, and $PM_{2.5}$. As seen in Table 1, BAAQMD thresholds would not be exceeded during construction activities associated with the proposed project with the exception of NOx. To reduce NO_x emissions, the project would be required to implement Mitigation Measure AQ-2 to require construction contractors to use construction equipment with emission controls to further reduce NO_x

3 ROGs and VOCs are subsets of organic gases that are emitted from the incomplete combustion of hydrocarbons or other carbon-based fuels. Although they represent slightly different subsets of organic gases, they are used interchangeably for the purposes of this analysis.

emissions. NO_x reduction measures As shown in Table 2, Maximum Daily Mitigated Construction Emissions, with the implementation of Mitigation Measures AQ-2 mitigated construction emissions are reduced to less than significant.

Table 2 - Maximum Daily Mitigated Construction Emissions

Construction Year	ROG (lbs/day)	NO_X (lbs/day)	PM_{10} (lbs/day)	$PM_{2.5}$ (lbs/day)
2016	1.6	27.8	6.1	3.8
2017	10.6	1.4	0.1	0.1
Threshold of Significance	***54***	***54***	***82***	***54***
Thresholds Exceeded?	*No*	*No*	*No*	*No*

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

Notes:
1. Emissions were calculated using CalEEMod.
2. Bay Area Air Quality Management District, California Environmental Quality Act Air Quality Guidelines, updated May 2011.

Source: Rincon, Oppidan Online Ordering Grocery Store Project Air Quality Study, June 2016.

Naturally Occurring Asbestos

Pursuant to guidance issued by the Governor's Office of Planning and Research, State Clearinghouse, Lead Agencies are encouraged to analyze potential impacts related to naturally occurring asbestos (NOA). Naturally occurring asbestos can be released from serpentinite and ultramafic rocks when the rock is broken or crushed. At the point of release, the asbestos fibers may become airborne, causing air quality and human health hazards. These rocks have been commonly used for unpaved gravel roads, landscaping, fill projects, and other improvement projects in some localities. Asbestos may be released to the atmosphere due to vehicular traffic on unpaved roads, during grading for development projects, and at quarry operations.

Serpentinite and/or ultramafic rock are known to be present in 44 of California's 58 counties. These rocks are particularly abundant in the counties associated with the Sierra Nevada foothills, the Klamath Mountains, and Coast Ranges. The California Air Resources Board (CARB) has established two Airborne Toxic Control Measures (ATCMs) that address NOA. The first one regulates surfacing materials and amends an older ATCM for asbestos-containing serpentine. The second ATCM, which applies to construction, grading, quarrying, and surface mining operations, requires more stringent dust control measures at these operations. The requirements for road construction and maintenance differ somewhat from those for general construction and grading (e.g., development of a shopping center). Other requirements of the proposed ATCM address post-construction stabilization of disturbed areas. These areas must be revegetated, paved, or covered with at least three inches of non-asbestos-containing material. NOA-containing material may be transported if the loads are adequately wetted or covered with tarps.

According to the Department of Conservation Division of Mines and Geology, A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos Report (August 2000), the project site is located in an area where naturally occurring asbestos is not likely to be present. Impacts would be less than significant in this regard.

Construction Odors

Potential odors could arise from the diesel construction equipment used on-site, as well as from architectural coatings and asphalt off-gassing. Odors generated from the referenced sources are common in the man-made environment and are not known to be substantially offensive to adjacent receptors. Additionally, odors generated during construction activities would be temporary. Therefore, construction odors are not considered to be a significant impact.

Long-Term Operational Impacts

Mobile Source Emissions

Mobile sources are emissions from motor vehicles, including tailpipe and evaporative emissions. Depending upon the pollutant being discussed, the potential air quality impact may be of either regional or local concern. For example, ROG, NO_X, SO_X, PM_{10}, and $PM_{2.5}$ are all pollutants of regional concern (NO_X and ROG react with sunlight to form O_3 [photochemical smog], and wind currents readily transport SO_X, PM_{10}, and $PM_{2.5}$). However, CO tends to be a localized pollutant, dispersing rapidly at the source.

Project-generated vehicle emissions have been estimated using CalEEMod. Table 3, Long-Term Operational Air Emissions, presents the anticipated mobile source emissions. As shown in Table 3, operational emissions generated by the proposed project would not exceed established BAAQMS thresholds for ROG, NO_X, PM_{10}, and/or $PM_{2.5}$.

Area Source Emissions

Area source emissions would be generated due to an increased demand for consumer products, additional landscaping, and architectural coatings associated with the development of the proposed project. As shown in Table 3, unmitigated area source emissions from the proposed project would not exceed BAAQMD thresholds for ROG, NO_X PM_{10}, or $PM_{2.5}$.

Energy Source Emissions

Energy source emissions would be generated as a result of electricity and natural gas usage associated with the proposed project. The primary use of electricity and natural gas by the project would be for space heating and cooling, water heating, ventilation, lighting, appliances, and electronics. As shown in Table 3, energy source emissions from the proposed project would not exceed BAAQMD thresholds for ROG, NO_X, PM_{10}, or $PM_{2.5}$.

Table 3 – Long-Term Operational Air Emissions

Emissions Source	Estimated Emissions (lbs/day)[1]					
	ROG	NO_X	PM_{10}	$PM_{2.5}$	CO	SO_X
Existing On-Site Use (Hardware Superstore with Lumber Yard)						
Area	1.5	<0.1	<0.1	<0.1	<0.1	<0.1
Energy	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Area & Energy Emissions	*1.5*	*<0.1*	*<0.1*	*<0.1*	*<0.1*	*<0.1*
Future On-Site Uses (Reduced Hardware Superstore with Lumber Yard)						
Area	1.3	<0.1	<0.1	<0.1	<0.1	<0.1
Energy	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Area & Energy Emissions	*1.3*	*<0.1*	*<0.1*	*<0.1*	*<0.1*	*<0.1*
Future On-Site Uses (Proposed Online Ordering Grocery Store)						
Area	0.7	<0.1	<0.1	<0.1	<0.1	<0.1
Energy	<0.1	0.7	<0.1	<0.1	0.6	<0.1
Mobile [2]	3.3	4.5	2.4	0.7	26.5	<0.1
Total Area, Energy & Mobile Emissions	*4.1*	*5.2*	*2.5*	*0.7*	*27.1*	*<0.1*
Threshold of Significance[3]	*54*	*54*	*82*	*54*	*N/A*	*N/A*
Thresholds Exceeded by Gross Emissions?	*No*	*No*	*No*	*No*	*No*	*No*
Net Increase in On-Site Emissions as a Result of the Project (Proposed Project Uses – Existing On-Site Uses)						
Difference (Future Uses Minus Existing Uses)	*3.9*	*5.2*	*2.5*	*0.7*	*27.1*	*<0.1*
Threshold of Significance	54	54	82	54	N/A	N/A
Threshold Exceeded by Net Emissions?	No	No	No	No	No	No

ROG = reactive organic gases; NO_X = nitrogen oxides; PM_{10} = particulate matter 10 microns in diameter or less; $PM_{2.5}$ = particulate matter 2.5 microns in diameter or less; CO = Carbon Monoxide; SO_X = Sulphur oxides

Notes:

1. Emissions were calculated using CalEEMod.
2. Mobile emissions are not included in the hardware superstore emissions because the net change of existing trips was accounted for in the Traffic Report, which was used to calculate the project (Proposed Online Ordering Grocery Store) emissions. See Appendix for CalEEMod output (winter).
3. Bay Area Air Quality Management District, California Environmental Quality Act Air Quality Guidelines, updated May 2011.

Source: Rincon, Oppidan Online Ordering Grocery Store Project Air Quality Study, June 2016.

Conclusion

As indicated in Table 3, unmitigated operational emissions from the proposed project would not exceed BAAQMD thresholds. The applicant does not propose any emergency generators. Thus, operational air quality impacts would be less than significant.

Mitigation Measures – Air Quality

AQ-1 **BAAQMD Basic Construction Mitigation Measures.** Prior to issuance of any Grading or Demolition Permit, the City Engineer or Chief Building Official shall confirm that the

Grading Plan, Building Plans, and specifications stipulate that the following basic construction mitigation measures shall be implemented:

- Water all active construction areas to maintain 12 percent soil moisture.
- All grading shall be suspended when winds exceed 20 miles per hour.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- 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.
- Hydroseed or apply non-toxic soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more).
- Enclose, cover, water twice daily or apply non-toxic soil binders to exposed stockpiles (including but not limited to dirt, sand, or gravel.)
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
- Wind breaks and perimeter sand bags shall be used to minimize erosion.
- The amount of simultaneously disturbed surface shall be minimized as much as possible.
- Site access points from public roadways shall be paved or treated to prevent track-out.
- Replace vegetation in disturbed areas as quickly as possible.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to two minutes. Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- Post a publicly visible sign with the telephone number and person to contact at the City regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.

AQ-2 **Tier 3 Protections on Specific Equipment, and Idling Limitation.** Prior to issuance of any Grading or Demolition Permit, the applicant shall submit to the satisfaction of the City Engineer or Chief Building Official, evidence that project contractors only operate construction equipment with Tier 3 engines or CARB-certified Level 3 Verified Diesel Emission Control System (VDECS), such as a diesel particulate filter (DPF), installed on Tier 3 equipment. Level 3 DPFs remove at least 85 percent of diesel particulate matter. DPF installation can also results in co-benefits for other criteria air pollutants, such as nitrogen oxides (NO_x) and reactive organic gases. At a minimum, these Tier 3 protections shall be implemented on all skip loaders, loaders, forklifts, and air compressors used by contractors. Contractors shall be restricted to a two-minute idling limit on all construction equipment. As an alternative, the project shall achieve a performance standard of not exceeding the BAAQMD thresholds relating to NO_X, which shall be demonstrated to the satisfaction of the City by a qualified air quality consultant.

(c) Cumulative air quality impacts

Less Than Significant Impact. No potential cumulative impacts on air quality standards have been identified based on the following analysis.

Cumulative Short-Term Emissions

The SFBAAB is designated nonattainment for O_3, PM_{10}, and $PM_{2.5}$ for state standards and nonattainment for O_3 and $PM_{2.5}$ for federal standards. As discussed above, the project's construction-related emissions by themselves would not have the potential to exceed the BAAQMD significance thresholds for criteria pollutants.

Since these thresholds indicate whether an individual project's emissions have the potential to affect cumulative regional air quality, it can be expected that the project-related construction emissions would not be cumulatively considerable. The BAAQMD recommended Basic Construction Mitigation Measures are recommended for all projects whether or not construction-related emissions exceed the thresholds of significance. Compliance with BAAQMD construction-related mitigation requirements are considered to reduce cumulative impacts at a Basin-wide level. Therefore, construction emissions associated with the proposed project would not result in a cumulatively considerable contribution to significant cumulative air quality impacts.

Cumulative Long-Term Emissions

The BAAQMD has not established separate significance thresholds for cumulative operational emissions. The nature of air emissions is largely a cumulative impact. As a result, no single project is sufficient in size to, by itself, result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. The BAAQMD developed the operational thresholds of significance based on the level above which a project's individual emissions would result in a cumulatively

considerable contribution to the Basin's existing air quality conditions. Therefore, a project that exceeds the BAAQMD operational thresholds would also be a cumulatively considerable contribution to a significant cumulative impact. As depicted in Table 3, the proposed project's operational emissions would not exceed BAAQMD thresholds. Therefore, operational emissions associated with the proposed project would not result in a cumulatively considerable contribution to significant cumulative air quality impacts.

(d) Exposure of sensitive receptors

Less Than Significant Impact. Sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis. The closest sensitive receptors are the existing multi-family residential uses adjoining the project site to the northwest and to the south.

Localized Carbon Monoxide Hotspots

The SFBAAB is designated as attainment for carbon monoxide (CO). Emissions and ambient concentrations of CO have decreased dramatically in the SFBAAB with the introduction of the catalytic converter in 1975. No exceedances of the CAAQS or NAAQS for CO have been recorded at nearby monitoring stations since 1991. As a result, the BAAQMD screening criteria notes that CO impacts may be determined to be less than significant if a project is consistent with the applicable congestion management plan (CMP) and would not increase traffic volumes at local intersections to more than 24,000 vehicles per hour for locations in heavily urban areas, where "urban canyons" formed by buildings tend to reduce air circulation. Based on the scope of the proposed project (replacing an existing 6,100 SF OSH customer pick-up facility with an 11,600 square-foot take-out grocery store building), traffic would increase along surrounding roadways during long-term operational activities. However, according to the Traffic Memorandum for the proposed project, the entire project would generate 978 daily trips. Therefore, the project would not generate a significant number of vehicle trips and effects related to CO concentrations would be less than significant.

Parking Structure Hotspots

Carbon monoxide concentrations are a function of vehicle idling time, meteorological conditions, and traffic flow. Therefore, parking areas and in this case, parking stalls tend to be of concern regarding CO hotspots, as they are spaces with frequent cars potentially queuing during operating hours. Approximately nine parking stalls would be constructed designated for customers waiting for their orders to be brought to their vehicles. The take-out grocery store would operate by having customers place their order in advance; drive to the site; and park in the on-site parking stalls to have their order brought out to their vehicle. Vehicle idling would be discouraged with signs, notifications from staff to customers telling them not to idle, and scheduling. As the proposed project includes operational controls involving limitations on

vehicle queueing and discouraging vehicle idling on site, impacts in regards to parking areas CO hotspots would be less than significant.

Risk and Health Hazards

According to Section 39655 of the California Health and Safety Code, a toxic air contaminant (TACs) is "an air pollutant which may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health". In addition, substances that have been listed as Federal hazardous air pollutants (HAPs) pursuant to Section 7412 of Title 42 of the United States Code are TACs under the State's air toxics program pursuant to Section 39657 (b) of the California Health and Safety Code. TACs can cause various cancers, depending on the particular chemicals, their type, and duration of exposure. Additionally, some of the TACs may cause other health effects over the short or long term. TACs of particular concern for posing health risks in California are acetaldehyde, benzene, 1-3 butadiene, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, perchlorethylene, and diesel particulate matter (DPM).

Construction

BAAQMD recommends that evaluation of community risk associated with construction activity be addressed on a case-by-case basis, taking into consideration the specific construction-related characteristics of each project and proximity to off-site receptors. Construction-related activities could result in the generation of TACs, specifically diesel PM, from on-road haul trucks and off-road equipment exhaust emissions. Due to the variable nature of construction activity, the generation of TAC emissions in most cases would be temporary, especially considering the short amount of time such equipment is typically within an influential distance that would result in the exposure of sensitive receptors to substantial concentrations. While off-site construction activity, such as on-road haul trucks, would result in diesel PM emissions, such emissions would be distributed along haul routes, rather than concentrated at the project site. Because of the short-term, distributed nature of these emissions, they would not contribute substantially to potential health risks near the project site, along haul routes, or elsewhere in the basin. Therefore, this analysis focuses on potential health risks associated with activity occurring on the project site during the construction phase.

The nearest potential sensitive receptors to the project site include the Cherry Orchard Apartments located immediately north and the Fall River Terrace residences located immediately south of the project site. Additionally, Cumberland Elementary School is located approximately 0.5 miles west and Valley Health Center hospital is located approximately 0.6 miles east of the project site. It is anticipated that the project would be constructed over a period of about six months, and would involve the use of standard diesel-powered construction equipment associated with demolition and building construction in an urban area (refer to Appendix A for the list of default construction equipment assumed by CalEEMod, as well as anticipated daily operation hours required to construct the project within the 12-month construction phase). The analysis is based on these environmentally conservative default assumptions; most construction projects employ fleets that have more modern, cleaner

engines (e.g., Tier 3 or higher), as required in Mitigation Measures AQ-2, and filters than are reflected in the default assumptions. Table 4, Maximum Daily Construction $PM_{2.5}$ Exhaust Emissions, shows the maximum daily emissions of $PM_{2.5}$ exhaust on-site during each phase of project construction, as well as the anticipated length of each phase of construction in working days.

Table 4 – Maximum Daily Construction $PM_{2.5}$ Exhaust Emissions

Construction Phase	On-Site $PM_{2.5}$ Exhaust (lbs/day)[1]	Duration (days)
Demolition	0.8	25
Site Preparation	1.5	3
Grading	1.9	8
Building Construction	0.8	21
Paving	0.7	10
Architectural Coating	0.2	16
$PM_{2.5}$ = particulate matter 2.5 microns in diameter or less.		
Notes: 1. Emissions were calculated using CalEEMod.		
Source: Rincon, Oppidan Online Ordering Grocery Store Project Air Quality Study, June 2016.		

As shown in Table 4, on-site emissions of $PM_{2.5}$ exhaust would not exceed 1.9 lbs/day during construction of the project, and would not be expected to exceed 0.8 lbs/day for a period in excess of 20 days. As described in Section 3.2(a) of this report, Short-Term Construction Impacts, on-site and overall emissions of $PM_{2.5}$ would be far below the applicable BAAQMD regional threshold of 54 lbs/day during the construction period (refer to Table 2). In addition, the project vicinity is not an area where vertical and/or horizontal mixing is substantially limited (e.g., a tunnel, parking garage, bridge underpass, natural or urban street canyon, or below-grade roadway). Accordingly, dispersal of on-site emissions is not substantially limited. Because $PM_{2.5}$ emissions would be relatively low compared to the applicable BAAQMD regional threshold, and because the construction period would be well under one year (approximately six months), short-term emissions of $PM_{2.5}$ during the construction period would not reasonably be expected to result in an exceedance of the BAAQMD's annual average $PM_{2.5}$ concentration threshold of 0.3 µg/m3 or the BAAQMD's cumulative annual average $PM_{2.5}$ concentration threshold of 0.8 µg/m3. Implementation of BAAQMD recommended dust and emission control BMPs would further reduce diesel PM exhaust emissions. Mitigation Measure AQ-1 requires that the dust control and other BMPs put forth by the BAAQMD are implemented during construction of the project. With the implementation of the BAAQMD-recommended BMPs pursuant to Mitigation Measure AQ-1, the construction of the project would not result in substantial emissions of $PM_{2.5}$, and the impact associated with construction-period localized pollutant concentrations would be less than significant.

Operations

The proposed grocery store would require up to four truck deliveries with transportation refrigeration units (TRU) per day that would generate TACs that could pose a possible risk to off-site uses. The BAAQMD's Recommended Methods for Screening and Modeling Local Risks and Hazards (May 2011) was used to complete a screening-level health risk assessment. The BAAQMD recommends a two-tiered approach for screening-level health risk assessments: a screening-level analysis of project emissions using generally over-predictive assumptions and if the predicted health risk is not within acceptable levels, then more detailed dispersion modeling is necessary.

A screening-level individual cancer analysis was conducted to determine the maximum $PM_{2.5}$ concentration from diesel exhaust. This concentration was combined with the DPM exposure unit risk factor to calculate the inhalation cancer risk from project-related truck deliveries and idling at the closest sensitive receptors. The EPA AERMOD air dispersion model was used to evaluate diesel exhaust concentrations. The technical study and model output for this analysis is included in Appendix B, Health Risk Assessment. Based upon the results of the analysis, the calculated risk would be 1.19 in one million, which is below the Cancer Risk Threshold of 10 in one million. Additionally, operational emissions would not exceed the Chronic and Acute Hazard Index Threshold of 1.0. Therefore, the project would not result in a health risk related impacts.

(e) Odors

Less Than Significant Impact. According to the BAAQMD, land uses associated with odor complaints typically include wastewater treatment plants, landfills, confined animal facilities, composting stations, food manufacturing plants, refineries, and chemical plants. The project proposes a grocery retail store and does not include sources of food odors from food preparation, cooking, or baking, or any uses identified by the BAAQMD as being associated with odors.

Construction activity associated with the project may generate detectable odors from heavy-duty equipment exhaust. Construction-related odors would be short-term in nature and cease upon project completion. Any impacts to existing adjacent land uses would be short-term and are considered less than significant.

Biological Resources

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
4. BIOLOGICAL RESOURCES. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified				X

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?				X
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?				X
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?		X		
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X

(a) Special-Status Species

No impact. The project site has been previously developed as an existing OSH store and parking areas. All native vegetation has been removed from the site. The proposed footprint for the proposed store would be partially within the footprint of the existing OSH store and the remainder of the store would be within the existing parking lot area. No impacts to sensitive or special status species would occur. For this reason, the project would not result in any significant impacts related to habitat modifications or adverse impacts on sensitive plant and animal species. The project would have no impact on biological resources and no further study is necessary.

(b) Riparian habitat or sensitive communities

No impact. See response to IV(a) above. No new impacts, changes in circumstances, or new information related to the proposed project has been identified that would result in an impact on riparian habitat or other sensitive natural community. The project would have no impact on biological resources and no further study is necessary.

(c) Wetlands

No impact. The project areas do not contain any wetland areas including federally protected wetlands. Therefore, the project would not remove, fill, or hydrologically interrupt federally protected wetlands and no impact would occur and no further study is necessary.

(d) Fish and wildlife

Less Than Significant with Mitigation Incorporated. See response to IV(a) above. The project area is located in a highly urbanized area, is an existing commercial area that have been previously developed as parking areas, has been previously approved for development, does not contain nor provide corridors for resident or migratory wildlife. Furthermore, the project site is not a native wildlife nursery site because the project site does not grow native plants that are sold or distributed for planting in other areas. The project would not impede the use of any wildlife nursery sites because no wildlife nursery sites are located on the adjacent properties or in the surrounding vicinity. Therefore, the project would not interfere with wildlife species movement or with established wildlife corridors or nursery sites.

However, existing landscaping and structures on the project site could provide nesting habitat for non-special-status migratory birds and raptors. A nesting bird impacts analysis was prepared for the project and is included in Appendix C. If construction occurs during the breeding season (generally between February 1 to September 15), demolition and construction activities (e.g., tree and shrub removal, excavation, grading) that occur within the Project area could disturb or remove occupied nests of non-special-status migratory birds and raptors. This disturbance could cause nest abandonment and subsequent loss of eggs or developing young at active nests located in or near the project area. This impact is considered significant because the project could result in a substantial adverse effect (through loss of eggs or young) on species (migratory birds and raptors) that are protected by the MBTA and California Fish and Game Code Sections 3503 and 3503.5. Implementation of Mitigation Measure BIO-1 would reduce this impact to less than significant.

(e) Conflict with local policies or ordinance include tree preservation

No impact. See response to IV(a) above. The project is required to comply with the City's Tree Protection Ordinance (Sunnyvale Municipal Code 19.94) for trees that have been identified as protected. Protected trees that are removed during project construction shall be replaced with a specimen tree of at least a 36-inch box size tree. Therefore, the project would have no impact on biological resources as a result of conflicts with local policies and ordinances protection biological resources.

(f) Conflict with adopted habitat conservation or natural community conservation plans

No impact. There are no adopted local, regional or state habitat conservation plans that apply to the project site. Therefore, the proposed project would result in no impact related to conflicts with an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. No mitigation is required.

Biological Resources Cumulative Impacts

The project site has been previously developed as an existing OSH store and parking areas and does not support any sensitive plant or animal species. Future individual projects within the City affecting biological resources would be subject to technical review and would be required to comply with applicable requirements associated with protecting biological resources. Additionally, the project site does not have habitat conditions in which sensitive plant or animal species would occur. The proposed project's contribution to impacts on biological resources in combination with other past and future projects would be less than cumulatively considerable. Future development projects in the area would be required to comply with all standard regulatory requirements. Thus, the proposed project plus related cumulative projects would result in less than significant cumulative impacts to biological resources. Therefore, the proposed project would not have a cumulatively considerable impact on biological resources.

Mitigation Measure – Biological Resources

BIO-1 **Migratory Birds**

Prior to the issuance of Grading Plans or improvement plans, the Project applicant shall demonstrate to the satisfaction of the Director of Community Development that the following notes are shown on the grading and improvement plans: All tree and building removal and initial grading of the site shall occur outside of the migratory bird and raptor breeding season (September 16 through January 31) unless the following requirements are implemented:

- If construction activities are scheduled to occur during the breeding season for non-special-status species (generally between February 1 to September 15)), a qualified wildlife biologist shall be retained to conduct the following focused nesting surveys, as follows:
  - Tree surveys shall be conducted within the Project site to look for nesting non-special-status migratory birds and raptors.
  - Surveys of all buildings shall be conducted to look for nesting non-special-status migratory birds and raptors.
  - The surveys shall be conducted between February 1 and September 15) and within one week prior to initiation of vegetation removal and ground disturbing activities.

- A summary report of the survey findings shall be submitted to the satisfaction of the Director of Community Development. If no active nests are detected during surveys, then no additional mitigation is required.

- If construction activities are scheduled to occur during the breeding season (generally between February 1 to September 15), and if surveys indicate that migratory bird or raptor nests are found in any areas that would be directly affected by construction activities, a no-disturbance buffer shall be established around the site to avoid disturbance or destruction of the nest site until after the breeding season, or after a wildlife biologist determines that the young have fledged (usually late-June to mid-July). The extent of these buffers shall be determined by a qualified wildlife biologist and shall depend on the level of noise or construction disturbance, line of sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers. These factors shall be analyzed in order to make an appropriate decision on buffer distances. A summary report of the survey findings with the location of the active nests and required buffer distances shall be submitted to the satisfaction of the City Community Development Director.

Cultural Resources

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
5. CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines section 15064.5?				X
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to section 15064.5?		X		
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		X		
d) Disturb any human remains, including those interred outside of formal cemeteries?		X		

(a) Historic resources

No impact. There are no structures located on the existing parking area site that are greater than 50 years or that have been designated as potentially historical by the City's General Plan or any other list identifying historical properties. As per Title 14, California Code of Regulations Section 15064.5, a 'historical resources' is listed in, or eligible for listing in, the National Register of Historic Places or the Californian Register of Historic Resources or listed in a local register of historical resources or is determined by the lead agency when supported by substantial evidence, such as a cultural resource evaluation by a qualified or registered architectural historian. No 'historic resource' currently exists on the project site or within the immediate area of the site.

(b) Archaeological resources

Less Than Significant with Mitigation Incorporated. The proposed project site has been previously graded and developed with an existing OSH store and parking areas. However, the proposed project has the potential to impact unknown archaeological resources because grading activities may result in the discovery of unknown cultural resources that are buried beneath the ground surface. To reduce this potentially significant impact to a less than significant level, all construction related impacts of soil shall be monitored in accordance with Mitigation Measure CULT-1.

Mitigation Measure – Cultural Resources

CULT-1 **Unknown Cultural Resources.** If any prehistoric or historic subsurface cultural resources are discovered during ground-disturbing activities, all work within 50 feet of the resources shall be halted and a qualified archaeologist shall be consulted to assess the significance of the find according to CEQA Guidelines Section 15064.5. If any find is determined to be significant, representatives from the City and the archaeologist shall meet to determine the appropriate avoidance measures or other appropriate mitigation. Consultation shall also include any Native American group that the archaeologist determines is culturally affiliated with the find. The parties shall determine whether preservation in place is feasible. Consistent with Section 15126.4(b)(3), this may be accomplished through planning construction to avoid the resource; incorporating the resource within open space (i.e. landscaping); or capping and covering the resource. If avoidance is not feasible, as determined by the City, a qualified archaeologist, in consultation with the City, shall prepare and implement a detailed treatment plan. Treatment of unique archaeological resources shall follow the applicable requirements of PRC Section 21083.2. Treatment for most resources would consist of (but would not be not limited to) sample excavation, artifact collection, site documentation, and historical research, with the aim to target the recovery of important scientific data contained in the portion(s) of the significant resource to be impacted by the project. The treatment plan shall include provisions for analysis of data in a regional context, reporting of results within a timely manner, curation of artifacts and data at an approved facility, and dissemination of reports to local and state repositories, libraries, and interested professionals. Work may proceed on other

parts of the project site while mitigation for historical resources or unique archaeological resources is being carried out.

Mitigation Measure CULT-1 is included in this analysis as a way to protect unknown cultural resources that could be buried underneath the ground surface and would not be discovered until grading activities commenced for the proposed project. If no cultural resources are found during construction, none of the actions described in CULT-1 are required.

(c) Paleontological/unique geological resources

Less Than Significant with Mitigation Incorporated. The proposed development area has been previously developed as an existing OSH store and parking lots, and as such, do not contain any unique geologic features.

However, there is still a potential to uncover previously unknown paleontological resources that are buried beneath the ground surface during grading activities, particularly excavation. Impacts on significant paleontological resources are considered potentially significant and mitigation is required. The following mitigation measure would be required as a condition of approval for the proposed project.

Mitigation Measure – Paleontological Resources

CULT-2 **Paleontological Resources.** Should any potentially unique paleontological resources (fossils) be encountered during development activities, work shall be halted immediately within 50 feet of the discovery, the City of Sunnyvale Community Development Department shall be immediately notified, and a qualified paleontologist shall be retained to determine the significance of the discovery. If any find is determined to be significant, representatives from the City and the paleontologist shall meet to determine the appropriate avoidance measures or other appropriate mitigation. Treatment for most resources would consist of (but would not be not limited to) sample excavation, artifact collection, site documentation, and historical research, with the aim to target the recovery of important scientific data contained in the portion(s) of the significant resource to be impacted by the project. The treatment plan shall include provisions for analysis of data in a regional context, reporting of results within a timely manner, curation of artifacts and data at an approved facility, and dissemination of reports to local and state repositories, libraries, and interested professionals. Work may proceed on other parts of the project site while mitigation for paleontological resources is being carried out.

Implementation of the above mitigation measure would reduce potentially significant impacts resulting from inadvertent damage or destruction to unknown paleontological resources located onsite during construction to a less than significant level.

(d) Human remains

Less Than Significant Impact With Mitigation Incorporated. The project sites are currently used parking areas and are not part of a formal cemetery or adjacent to a cemetery. Similar to

cultural and paleontological resources, the potential exists for accidental discovery of unknown human remains that exist below the ground surface and would only be discovered during grading activities.

State CEQA Guidelines Section 15064.5, subdivision (e) requires that excavation activities be stopped whenever human remains are uncovered and that the county coroner be called in to assess the remains. If the county coroner determines that the remains are those of Native Americans, the Native American Heritage Commission must be contacted within 24 hours. At that time, the lead agency must consult with the appropriate Native Americans, if any, as timely identified by the Native American Heritage Commission. Section 15064.5 directs the lead agency (or applicant), under certain circumstances, to develop an agreement with the Native Americans for the treatment and disposition of the remains.

In addition to the mitigation provisions pertaining to accidental discovery of human remains, the State CEQA Guidelines also require that a lead agency make provisions for the accidental discovery of historical or archaeological resources, generally. Pursuant to Section 15064.5, subdivision (f), these provisions should include "an immediate evaluation of the find by a qualified archaeologist. If the find is determined to be an historical or unique archaeological resource, contingency funding and a time allotment sufficient to allow for implementation of avoidance measures or appropriate mitigation should be available. Work could continue on other parts of the building site while historical or unique archaeological resource mitigation takes place."

The mitigation measure proposed in CULT-3 is included in this analysis to reduce and minimize potential impacts on human remains should they be discovered during construction activity.

Mitigation Measure – Cultural Resources

CULT-3 **Human Remains.** If human skeletal remains are uncovered during construction, the construction contractor shall immediately halt work within 50 feet of the find, contact the Santa Clara County Coroner to evaluate the remains, and follow the procedures and protocols set forth in Section 15064.5(e)(1) of the CEQA Guidelines. If the County Coroner determines that the remains are Native American, the project applicant shall contact the Native American Heritage Commission, in accordance with Health and Safety Code Section 7050.5, subdivision (c), and Public Resources Code 5097.98 (as amended by AB 2641). Per Public Resources Code 5097.98, the construction contractor shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the human remains are located, is not damaged or disturbed by further development activity until the project applicant has discussed and conferred, as prescribed in this section (California Public Resources Code Section 5097.98), with the most likely descendants regarding their recommendations, if applicable, taking into account the possibility of multiple human remains.

No known human remains have been identified onsite, however, this mitigation measure is included as a way to protect previously undiscovered human remains that could be buried

underneath the ground surface and would not be discovered until grading activities commenced for the proposed project. If no human remains are found during construction, none of the actions described in CULT-3 are required. For these reasons, potential impacts are considered less than significant with mitigation incorporated.

Cultural Resources Cumulative Impacts

The chances of cumulative impacts occurring as a result of the proposed project implementation plus implementation of other projects in the region is not likely since all proposed projects would be subject to individual project level environmental review. The proposed project would implement Mitigation Measures CULT-1, CULT-2, and CULT-3. Project-related impacts would be less than significant with the incorporation of previously identified measures tailored to the project site. Due to existing laws and regulations in place to protect historical and cultural resources to prevent significant impacts to paleontological resources and human remains, no significant cumulative impacts are expected when the impacts of all other relevant projects are combined. In any event, the potential incremental effects of the proposed project would not be cumulatively considerable.

Geology and Soils

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
6. 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?			X	
ii) Strong seismic ground shaking?		X		
iii) Seismic-related ground failure, including liquefaction?		X		
iv) Landslides?				X
b) Result in substantial soil erosion or the loss of topsoil?			X	

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?		X		
d) Would the project 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?		X		
e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X

(a) Exposure to adverse effects

(i) Earthquake fault rupture

Less Than Significant Impact. The San Francisco Bay Area is one of the most seismically active regions in the United States. The significant earthquakes that occur in the Bay Area are generally associated with crustal movement along well-defined active fault zones of the San Andreas Fault system, which regionally trend in a northwesterly direction. The Project site is not located within a currently designated Alquist-Priolo Earthquake Fault Zone (formerly known as a Special Studies Zone), or a Santa Clara County Fault Rupture Hazard Zone. Since no known surface expression of active faults crosses the site, fault rupture through the site is not anticipated, and the potential impact from fault rupture would be considered less than significant.

(ii) Ground shaking

Less Than Significant With Mitigation Incorporated. Ground shaking is the cause of most damage during earthquakes. The degree of shaking that would be expected at a particular site is dependent on the distance from the earthquake source, the magnitude of the earthquake, and the type, thickness, and condition of the geologic materials (bedrock, sediment, soil, fill). In accordance with the CBC, applicants for a building permit are required to determine the appropriate seismic design criteria for the proposed structures on the basis of soil type, the magnitude of the controlling seismic event, slip rate of the nearest fault, and distance to the nearest active fault. The structural design for the proposed structures would be based on Chapter 16 of the 2013 CBC, which provides criteria for the seismic design of buildings. They are established based on a series of tables and figures provided in Chapter 16 of the CBC that

address different site factors, including the soil profile in the upper 500 feet below grade and mapped spectral acceleration parameters based on distance to the controlling seismic source/fault system. As such, the applicant's geotechnical report would provide recommendations regarding the project design to account for the site specific soil conditions.

The following mitigation measure is included to ensure that the recommendations of the final geotechnical report are incorporated into the project grading and building plans.

Mitigation Measure – Geology and soils

GEO-1 **Geotechnical Recommendations.** Prior to the issuance of a grading permit or improvement plans in lieu of a grading permit, and building plans the applicant shall:

Demonstrate to the satisfaction of the City Engineer, that the recommendations of the project geotechnical report have been incorporated into the project grading and building plans.

With the incorporation of the Mitigation Measure GEO-1, review and enforcement of these site specific geotechnical design measures would occur during the grading permit and building permit process when design plans would be reviewed by City Staff. Therefore, potential impacts are considered less than significant with the incorporation of mitigation.

(iii) Liquefaction

Less Than Significant with Mitigation Incorporated. Potential impacts from an unstable geologic unit or liquefaction are considered less than significant because engineering practices that take into consideration the project specific soil properties would be incorporated into the project design. Implementation of Mitigation Measure GEO-1 would reduce potential impacts to less than significant with mitigation incorporated.

(iv) Landslides

No impact. The project site is mostly flat and is not located near an existing hillside or sloped area. The risk of ground instability is reduced by adhering to relevant California Building Code requirements for grading and building design. As such, no impact from landslides on the project have been identified.

(b) Soil erosion

Less Than Significant Impact. The project is subject to Provision C3 of the Municipal Regional Stormwater Permit Order No, R2-2009-0074 and the project applicant must submit a Stormwater Management Plan per Sunnyvale Municipal Code 12.60.140 prior to the issuance of a building permit. These measures would be enforced by City staff during the review process of the project grading plans. Implementation of these measures was required to ensure that the potential for soil erosion would be reduced or avoided and as a result, potential impacts are considered to be less than significant.

(c) Unstable soil

Less Than Significant with Mitigation Incorporated. With the incorporation of Mitigation Measure GEO-1 discussed above, potential impacts from an unstable geologic unit or soil type are considered less than significant because engineering practices that take into consideration the project specific soil properties recommended in the project geotechnical report would be incorporated into the project design. Therefore, potential impacts are considered less than significant with mitigation incorporated.

(d) Expansive soil

Less Than Significant with Mitigation Incorporated. Expansive soils are generally high in clays or silts that shrink or swell with variation in moisture. If present and not properly treated, expansive soils may damage structures, either through heaving, tilting, or cracking of building foundations. Implementation of Mitigation Measure GEO-1 would reduce potential impacts due to expansive soils to a less than significant because engineering practices that take into consideration the project specific soil properties would be incorporated into the project design. Therefore, potential impacts are considered less than significant with mitigation incorporated.

(e) Soil capability to support septic tanks or alternative wastewater disposal systems where sewers are not available

No impact. The proposed project does not propose nor require the use septic tanks or alternative wastewater disposal systems.

Geology and Soils Cumulative Impacts

The potential cumulative impact related to geology and soils is typically site specific. The analysis herein determined that the proposed project would not result in any impacts related to landform modification, grading, or the destruction of a geologically significant landform or feature with the implementation of the proposed project. Moreover, existing state and local laws and regulations are in place to protect people and property from substantial adverse geological and soils effects, including fault rupture, strong seismic groundshaking, seismic-induced ground failure (including liquefaction), and landslides. Mitigation Measure GEO-1 requires the project grading design to incorporate geotechnical recommendations to address site specific soil conditions. Existing laws and regulations also protect people and property from adverse effects related to soil erosion, loss of topsoil, development on an unstable geologic unit or soil type that could result in on- or off-site landslides, lateral spreading, subsidence, liquefaction, or collapse, or on expansive soils. As a result, the existing legal and regulatory framework would ensure that the incremental geological and soils effects of the proposed project would not result in greater adverse cumulative effects when considered together with the effects of other past, present, and reasonably foreseeable future projects in the region. The impacts of the proposed project related to geology and soils would be less than cumulatively considerable.

Greenhouse Gas Emissions

ENVIRONMENTAL IMPACTS Issues		Potentially Significant Issues	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
7.	**GREENHOUSE GAS EMISSIONS. Would the project:**				
a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b)	Conflict with applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X	

(a) Generate greenhouse gas (GHG) emissions

Less Than Significant Impact.

Global Climate Change

California is a substantial contributor of global greenhouse gases (GHGs), emitting over 400 million tons of carbon dioxide (CO_2) per year.[4] Climate studies indicate that California is likely to see an increase of three to four degrees Fahrenheit (ºF) over the next century. Methane (CH_4) is also an important GHG that potentially contributes to global climate change. GHGs are global in their effect, which is to increase the earth's ability to absorb heat in the atmosphere. As primary GHGs have a long lifetime in the atmosphere, accumulate over time, and are generally well-mixed, their impact on the atmosphere is mostly independent of the point of emission.

The impact of human activities on global climate change is apparent in the observational record. Air trapped by ice has been extracted from core samples taken from polar ice sheets to determine the global atmospheric variation of CO_2, CH_4, and nitrous oxide (N_2O) from before the start of industrialization (approximately 1750), to over 650,000 years ago. For that period, it was found that CO_2 concentrations ranged from 180 parts per million (ppm) to 300 ppm. For the period from approximately 1750 to the present, global CO_2 concentrations increased from a

[4] California Energy Commission, California Greenhouse Gas Inventory for 2000-2013, June 30, 2015.

pre-industrialization period concentration of 280 ppm to 379 ppm in 2005, with the 2005 value far exceeding the upper end of the pre-industrial period range.

Regulations and Significance Criteria

The Intergovernmental Panel on Climate Change (IPCC) constructed several emission trajectories of GHGs needed to stabilize global temperatures and climate change impacts. It concluded that a stabilization of GHGs at 400 to 450 ppm carbon dioxide equivalent (CO_2eq)[5] concentration is required to keep global mean warming below 2 degrees Celsius (ºC), which in turn is assumed to be necessary to avoid dangerous climate change.

Executive Order S-3-05 set forth a series of target dates by which statewide emissions of GHGs would be progressively reduced, as follows:

- By 2010, reduce GHG emissions to 2000 levels;
- By 2020, reduce GHG emissions to 1990 levels; and
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

Assembly Bill (AB) 32 requires that the California Air Resources Board (CARB) determine what the statewide GHG emissions level was in 1990, and approve a statewide GHG emissions limit that is equivalent to that level, to be achieved by 2020. CARB has approved a 2020 emissions limit of 427 million metric tons (MMT) of CO_2eq.

Due to the nature of global climate change, it is not anticipated that any single development project would have a substantial effect on global climate change. In actuality, GHG emissions from the proposed project would combine with emissions emitted across California, the United States, and the world to cumulatively contribute to global climate change.

In June 2008, the California Governor's Office of Planning and Research (OPR) published a Technical Advisory, which provides informal guidance for public agencies as they address the issue of climate change in California Environmental Quality Act (CEQA) documents.[6] This is assessed by determining whether a proposed project is consistent with or obstructs the 39 Recommended Actions identified by CARB in its Climate Change Scoping Plan which includes nine Early Action Measures (qualitative approach). The Attorney General's Mitigation Measures identify areas were GHG emissions reductions can be achieved in order to achieve the goals of AB 32. As set forth in the OPR Technical Advisory and in the proposed amendments to the CEQA Guidelines Section 15064.4, this analysis examines whether the project's GHG emissions are significant based on a qualitative and performance based standard (CEQA Guidelines Section 15064.4(a)(1) and (2)).

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[5] Carbon Dioxide Equivalent (CO_2eq) – A metric measure used to compare the emissions from various greenhouse gases based upon their global warming potential.

[6] Governor's Office of Planning and Research, *CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review*, 2008.

Bay Area Air Quality Management District Thresholds

The Bay Area Air Quality Management District's (BAAQMD's) approach to developing a threshold of significance for GHG emissions is to identify the emissions level for which a project would not be expected to substantially conflict with existing California legislation adopted to reduce statewide GHG emissions needed to move us towards climate stabilization. If a project would generate GHG emissions above the threshold level, it would be considered to contribute considerably to a significant cumulative impact. Stationary-source projects include land uses that would accommodate processes and equipment that emit GHG emissions and would require an Air District permit to operate. If annual emissions of operational-related GHGs exceed these levels, the proposed project would result in a cumulatively considerable contribution to a cumulatively significant impact to global climate change.

Table 5, Bay Area Air Quality Management District GHG Thresholds, presents the project-level thresholds for GHG emissions. It should be noted that the BAAQMD does not have an adopted threshold of significance for construction-related GHG emissions. However, the BAAQMD recommends quantification and disclosure of construction GHG emissions. The BAAQMD also recommends that the Lead Agency should make a determination on the significance of these construction generated GHG emission impacts in relation to meeting AB 32 GHG reduction goals, as required by the Public Resources Code, Section 21082.2. The Lead Agency is encouraged to incorporate best management practices to reduce GHG emissions during construction, as feasible and applicable.

Exercising its own discretion as lead agency, the City of Sunnyvale relies on the thresholds within the Options and Justification Report (dated October 2009) prepared by the BAAQMD. The BAAQMD Options and Justification Report establishes thresholds based on substantial evidence and are consistent with the thresholds outlined in the 2010 CEQA Air Quality Guidelines. These recommendations still represent the best available science on the subject of what constitutes significant air quality and/or GHG effects for this project. Therefore, the BAAQMD's thresholds are used to analyze the project's GHG impacts on climate change. In addition, the discussion of the project's compliance with the local Climate Action Plan (impact VII.b) is incorporated by reference and also supports the conclusion that impacts will be less than significant.

Table 5 – Bay Area Air Quality Management District GHG Thresholds

Project Type	Construction-Related	Operational-Related
Projects other than Stationary Sources[1]	None	Compliance with Qualified Climate Action Plan OR 1,100 $MTCO_2eq/yr.$ OR
Stationary Sources[1]	None	10,000 $MTCO_2eq/yr.$
$MTCO_2eq/yr.$ = metric tons of carbon dioxide equivalent per year		
Notes: 1. According to the BAAQMD CEQA Guidelines, a stationary source project is one that includes land uses that would accommodate processes and equipment that emit GHG emissions and would require a BAAQMD permit to operate. Projects other than stationary sources are land use development projects including residential, commercial, industrial, and public uses that do not require a BAAQMD permit to operate. 2. SP = service population (residents + employees) 3. 2010/2011 BAAQMD CEQA Guidelines (p. D-22) indicate that this threshold can be applied to all project types (residential or commercial/retail only and mixed use).		
Source: Bay Area Air Quality Management District, *Options and Justification Report*, October 2009 and Bay Area Air Quality Management District, *CEQA Air Quality Guidelines*, May 2011.		

City of Sunnyvale Climate Action Plan

In May 2014, the City of Sunnyvale prepared a Climate Action Plan (CAP) to streamline future environmental review of development projects in Sunnyvale by following the CEQA Guidelines and meeting the BAAQMD expectations for a Qualified GHG Reduction Strategy. The CAP would also identify how the City would achieve the state-recommended GHG emission reduction target of 15 percent below 2008 levels by the year 2020 (equivalent to 1990 emissions). The CAP provides goals and associated measures (reduction measures), in the sectors of energy use, transportation, land use, water, solid waste, and off-road equipment. Implementation of the CAP would reinforce and build upon these policies and programs to proactively reduce GHG emissions. The CAP includes the following:

- A GHG emissions inventory. The emissions sources calculated in the baseline GHG inventory include commercial, residential, and industrial electricity and natural gas use, on-road transportation, solid waste disposal, energy use and direct process emissions related to water and wastewater, and off-road equipment use for construction and lawn and garden activities. GHG emissions from these activities were calculated from activity data such as kilowatt hours of electricity, therms of natural gas, tons of waste disposed, and vehicle miles traveled (VMT) from trips with an origin or destination in Sunnyvale. The GHG emissions inventory utilizes a baseline year of 2008. In 2008, the community emitted approximately 1,270,170 metric tons of carbon dioxide equivalents (MT CO_2e).
- GHG emission projections through year 2035 (consistent with target date set by Senate Bill [SB] 375). The projections rely on the Sunnyvale General Plan projections of housing, population, employment, and VMT projections within the City for 2020 (per SB 32) and

2035 (per SB 375). Based on projected growth, annual emission forecasts under "business as usual" conditions (no application of GHG reduction measures) are estimated at 1,810,160 $MTCO_2e$ by 2035 (43 percent increase).

- Identification of reduction targets. The City's adopted CAP GHG reduction targets is to meet 15 percent below baseline levels by 2020 and progress toward the 80 percent below 1990 levels by 2050 baseline levels by 2020.
- Application of reduction strategies from CAP. The CAP reduction strategies quantify a diverse mix of regulatory and incentive-based programs. The reduction strategies aim to reduce GHG emissions from each source to avoid reliance on any one strategy or sector to achieve the target. The reduction strategies are separated by topic area to correspond with the different sectors of GHG emissions as follows: Open Space and Urban Forestry; Decrease Energy Consumption; Provide a Sustainable Energy Portfolio; Decrease Water Consumption; Reduce Landfilled Waste; Reduce Off-Road Equipment Emissions; Increase and Retain Awareness of Sustainability Issues; Improve Mobility Through Land Use Planning; Expand Sustainable Circulation and Transportation Options; and Optimize Vehicular Travel.
- Providing a GHG Emission Reduction Summary. Based on application of the reduction strategies and projected growth, estimated annual emissions can be reduced by 434,890 $MTCO_2e$ by 2020 and 649,210 MT CO_2e by 2035.
- Implementation of adaptation measures from CAP. There are two types of adaptation measures: operational changes and increases to adaptive capacity. Operational measures assess climate change vulnerabilities and sensitive populations on a regular basis. They also address climate change adaptation in planning and public safety documents. Adaptive capacity measures are strategies that help prepare for and adjust to the impacts of climate change.
- Monitor progress through an Implementation Program. The implementation program outlines a path for the City to monitor progress and summarizes the GHG reductions that would occur through the implementation of the CAP.

City of Sunnyvale Green Building Program

The City Council adopted a green building program which became effective on January 1, 2010. On October 1, 2012, modifications were made to the program with new residential requirements. The following steps are needed to comply with the City's green building program:

- Identify Minimum Standards: Minimum standards are based on the type of project and scope of work. Refer to the tables on the reverse side of this brochure to determine green building checklist requirements, level of achievement, and verification necessary for various types of projects.

- Submit Building Permit Plans: Building permit plans shall include the appropriate checklist on a plan sheet. All required/selected green building items shall be incorporated in the plans.
- Verification of Green Building Measures: City staff verification will be part of the regular plan review and inspection process. Green Point Rater/Leadership in Energy and Environmental Design (LEED) Accredited Professional (AP) verification requires the project LEED AP to provide a letter that states the project is designed to achieve the minimum points required. A similar letter, based on the actual construction, is required before occupancy/final inspection.

USGBC Certification verification is achieved by providing a letter prior to permit issuance that states, as designed, the plans will achieve the minimum points required and that the project has been registered with the USGBC. A similar letter is required before occupancy/final inspection and based on the actual construction and stating when the project will be submitted to the USGBC.

Incentives are offered for projects that exceed the minimum green building standards and are offered to encourage project applicants and developers to provide additional green building features. Projects that add additional buildings of floor area to an existing site, qualify for the incentive if all buildings at the existing site meet the incentive level through an applicable LEED program (i.e., new construction, core and shell, commercial interiors, existing buildings). The LEED standard for the existing buildings shall be met prior to occupancy of the new buildings.

Project Impacts

The proposed project would result in direct and indirect emissions of CO_2, N_2O, and CH_4, and would not result in other GHGs that would facilitate a meaningful analysis. Therefore, this analysis focuses on these three forms of GHG emissions. Direct project-related GHG emissions include emissions from construction activities, area sources, and mobile sources, while indirect sources include emissions from electricity consumption, water demand, and solid waste generation. Operational GHG estimations are based on energy emissions from natural gas usage and automobile emissions. Project related GHG emissions were quantified with the California Emissions Estimator Model (CalEEMod), as recommended by the BAAQMD. CalEEMod relies upon vehicle trip rates and project specific land use data to calculate emissions. The project proposes to replace a 6,100 SF OSH customer pick-up facility with an 11,600 square foot building that would operate as a take-out grocery store with approximately 45 parking spaces, and a forecast trip generation of approximately 978 daily trips. Table 6, Combined Annual Emissions of Greenhouse Gases, presents the estimated CO_2, N_2O, and CH_4 emissions of the proposed project. CalEEMod outputs with the GHG emissions data are contained within Appendix A.

Table 6 –Combined Annual Emissions of Greenhouse Gases

Emission Source	Annual Emissions
Amortized Construction	2.5 MT CO_2e
Operational	
Area	<0.1 MT CO_2e
Energy	252.2 MT CO_2e
Solid Waste	60.8 MT CO_2e
Water	10.2 MT CO_2e
Mobile	
CO_2 and CH_4	465.8 MT CO_2e
N_20	10.2 MT CO_2e
Total	**815.8 MT CO_2e**

Direct Project-Related Sources of Greenhouse Gases

- Construction Emissions. Construction GHG emissions are typically summed and amortized over the lifetime of the project (assumed to be 25 years, the assumed life of the project), then added to the operational emissions. It is noted that the BAAQMD has not adopted thresholds for GHGs associated with construction activities, but recommends that they are quantified and disclosed.
- Area Source. Area source emissions were calculated using CalEEMod and project-specific land use data. As noted in Table 6, the proposed project would result in negligible (0. 10 $MTCO_2eq/yr$) area source GHG emissions.
- Mobile Source. The project specific daily trips generation rates from the project Traffic Study was used to calculate mobile source emissions. The proposed project would directly result in 4,76 $MTCO_2eq/yr$ of mobile source-generated GHG emissions; refer to Table 6.

Indirect Project-Related Sources of Greenhouse Gases

- Energy Consumption. Energy consumption emissions were calculated using CalEEMod and project-specific land use data. Electricity would be provided to the project site via Pacific Gas and Electric Company (PG&E). The project would indirectly result in 252.2 $MTCO_2eq/year$ due to energy consumption; refer to Table 6.
- Solid Waste. Solid waste associated with operations of the proposed project would result in 60.8 $MTCO_2eq/year$; refer to Table 6.
- Water Demand. The project operations would result in a demand of approximately 3.75 million gallons of water per year. Emissions from indirect energy impacts due to water supply would result in 10.2 $MTCO_2eq/year$; refer to Table 6.

Total Project-Related Sources of Greenhouse Gases

As shown in Table 6, the total amount of project-related GHG emissions from direct and indirect sources combined would total 815.8 $MTCO_2eq/yr$. As such, the project's GHG emissions

would be below the BAAQMD's 1,100 $MTCO_2eq/yr$ threshold. Therefore, emissions would not exceed the GHG significance threshold of 1,100 $MTCO_2eq/yr$, and a less than significant impact would occur. An alternate analysis was conducted to compare the annual, un-amortized emissions to the BAAQMD bright-line threshold. GHG emissions over the six-month construction period were added to a six-month period of operational GHG emissions to arrive at total annual emissions for the first year of the project. The construction emissions of 62.5 MT CO_{2e}, plus half of the operational annual emissions totals approximately 457 MT CO_{2e}, which is less than the BAAQMD bright line threshold of 1,100 MT CO_{2e}.

(b) Conflict with GHG plans or regulations

Less Than Significant Impact.

In May 20, 2014, the City of Sunnyvale adopted their Final CAP, which provides goals and associated reduction measures in the sectors of open space and urban forestry, energy use, transportation and mobility, land use, water, solid waste, and off-road equipment. Table 7, Project Consistency with the CAP, discusses the project's consistency with the applicable CAP reduction measures.

As shown in Table 7, the proposed project would be consistent with the applicable CAP reduction measures. Thus, the project would help implement the CAP, and would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. A less than significant impact would occur in this regard.

Cumulative Impacts

As stated above, the proposed project would not result in a significant impact regarding GHG emissions. It is generally the case that an individual project of this size and nature is of insufficient magnitude by itself to influence climate change or result in a substantial contribution to the global GHG inventory.[7] GHG impacts are recognized as exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective.[8] The additive effect of project-related GHGs would not result in a reasonably foreseeable cumulatively considerable contribution to global climate change. In addition, the proposed project as well as other cumulative related projects would also be subject to all applicable regulatory requirements, which would further reduce GHG emissions. This includes adherence to all federal, state, and local policies adopted for the purpose of reducing GHG emissions. The proposed project would result in a less than significant impact regarding GHG emissions. Therefore, the proposed project's cumulative GHG emissions would be considered less than significant.

[7] California Air Pollution Control Officers Association, CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act, 2008.
[8] Ibid.

Table 7 – Project Consistency with the CAP

Strategy	Project Consistency
Decrease Building Energy Consumption	
EC-1: Lighting Efficiency. Increase the use of efficient indoor and outdoor lighting technologies.	**Consistent** The project would be required to comply with Title 24 energy efficiency standards and would incorporate light emitting diode (LED) lights on the inside of the building. In addition, the streetlights included in the project would also incorporate LED lights which are more efficient than traditional lighting methods.
EC-2: New Construction And Remodels. Require green building practices in new residential and commercial development and remodels.	**Consistent** The project would comply with the City's Green Building Program and the City of Sunnyvale Municipal Code Chapter 19.39, Green Building Regulations, which implements sustainable development with development and construction practices.
Decrease Water Consumption	
WC-2: Reduce indoor and outdoor potable water use in residences, businesses, and industry.	**Consistent.** The project would comply with all applicable regulations and ordinances, including the State Landscape Ordinance and CalGreen standards as well as City of Sunnyvale Municipal Code Chapter 12.34, Water Conservation Restrictions, which require water use restrictions.
Off-Road Equipment	
OR-2: Construction Equipment. Reduce emissions from heavy-duty construction equipment by limiting idling and utilizing cleaner fuels, equipment, and vehicles.	**Consistent.** The project would be required to comply with Bay Area Air Quality Management District Basic Construction Mitigation Measure which includes dust control procedures such as limiting idling on-site vehicle speeds, minimizing idling times by shutting equipment off when not in use or reducing the maximum idling time to two minutes, and ensuring all construction equipment be properly maintained and tuned in accordance with manufacturer's specifications.
Improve Mobility Through Land Use Planning	
LUP-3: ***Local Commerce and Food.*** Increase the amount of locally generated and consumed goods in order to decrease the need for travel and promote healthier communities.	**Consistent.** The project proposes a take-out grocery store that places locally generated and commonly used consumer goods and services in proximity to nearby residential and commercial uses.
LUP-5 Distributed Services. Encourage the wider distribution of commonly used facilities and services in order to reduce the need for or length of vehicular trips to and from places of work and residence.	**Consistent.** Refer to LUP-3 Response.
Optimize Vehicular Travel	
OVT-3: Circulation Efficiency. Improve the flow and efficiency of vehicular traffic throughout the city to avoid idling and reduce fuel consumption.	**Consistent.** The project is designed to efficiently circulate traffic through the site by scheduling a maximum of approximately 40 pick-ups during the peak hours and requiring each vehicle to turn their engine off instead of idling in the waiting area at all times.
Source: PMC, City of Sunnyvale Climate Action Plan, adopted May 20, 2014.	

Hazards and Hazardous Materials

ENVIRONMENTAL IMPACTS Issues		Potentially Significant Issues	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
8.	**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?			X	
b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?		X		
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼ mile of an existing or proposed school?				X
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?			X	
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 result in a safety hazard for people residing or working in the project area?				X
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?				X
g)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
h)	Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				X

(a) Hazard through transport/use/disposal of hazardous materials

Less Than Significant Impact. The major transportation route in proximity to the project site is El Camino Real. Transportation accidents involving hazardous materials could occur on any of the routes that would be utilized within the City, including Sunnyvale-Saratoga Road and South Mathilda Avenue, which provide access to the project site.

The proposed project would be developed as a grocery store and parking area, and is not expected to transport, use, or dispose of significant amounts of hazardous materials. Once the proposed project is constructed, hazardous materials would be limited to those associated with property maintenance and building operations, similar to the existing buildings in the surrounding area. These include common landscaping fertilizers, pesticides, paint, solvent, and petroleum products. Because these materials would be used in limited quantities, they are not considered a significant hazard to the public. Potential impacts associated with the proposed project are, therefore, considered less than significant.

(b) Hazard through release of hazardous materials into the environment

Less Than Significant Impact With Mitigation Incorporated. On behalf of Green Grocery, LLC, Moore Twining performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-13 for the Site located at 777 Sunnyvale Saratoga Road in the City of Sunnyvale and County of Santa Clara, California. The Phase I ESA was performed during June 2015. This Phase I Environmental Site Assessment is included in Appendix D. The standard for the Phase 1 ESA is ASTM E1527-13 which establishes the purpose of a Phase 1 as ensuring that good commercial and customary practice is employed to protect the user of the Phase 1 ESA from liability under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

The proposed project would replace 6,100 square feet of the OSH customer pick-up facility with a 11,600 square foot building that would operate as a take-out grocery store, and is not expected to transport, use, or dispose of significant amounts of hazardous materials. The Phase I ESA revealed no evidence of recognized environmental conditions (RECs), controlled recognized environmental conditions (CRECs) or historical recognized environmental conditions (HRECs) in connection with the site. The Phase I ESA did identify a Business Environmental Risk Consideration (BERC). A BERC does not represent a significant risk of contamination from the hazardous chemicals and/or wastes listed under CERCLA. Rather, they represent issues that a client may, as a business matter, wish to investigate further. The Phase I ESA identified the following BERC:

A review of historical documentation indicates that the site was occupied by an orchard from at least the late 1930s to the late 1960s. Therefore, there is a potential that environmentally persistent pesticides were applied to the site during this time. Because the site is reported to have been commercially developed since at least the early 1970s, the current potential impact to the site from these pesticides appears to be low. This BERC does not present an immediate significant hazard to the public or the environment, for the following reasons:

- The pesticide application that took place was prior to any large development in the area, and spanned across multiple properties in the area. The majority of the site has been paved, which removes the major exposure pathway. Risk of contamination of groundwater and stormwater is limited, as the pavement and buildings prevent infiltration and runoff. The historical agricultural use of the site and the associated chemical usage does not represent an REC but rather a BERC due to the legal application of pesticides being exempt from CERCLA liability, as defined in the United States Health and Welfare Code Title 42, Chapter 103 (CERCLA), Subchapter I, Section 9607 (Liability), subsection (i).

- Moore Twining has performed multiple studies on historical agricultural land, with only a low percentage of these studies having concentrations of constituents of concern at levels above human health risk-based screening levels (RBSLs). The sole exception is arsenic, which commonly occurs naturally in California soils at levels above RBSLs. Common exposure pathways for these pesticides and heavy metals are inhalation and ingestion. The risk involved with regards to human health is for workers who will be interacting with the soil, whether tactilely or by breathing dust.

- The area subject to disturbance is a small portion of the project site, with the disturbed area comprising only 1.56 acres. This is a small project with a correspondingly small potential for disturbing soils.

- Much of the site was previously disturbed by agricultural uses and prior development. While specific information about the agricultural practices undertaken at the site are unknown, it is common at an agricultural site for the ground to have been tilled and disked, disturbing approximately the top two feet of soil. Similarly, the site is currently developed with structures and a parking lot, which means soils must have been disturbed during prior development. It is standard industry practice to remove all organic matter on the surface, to reach soil that is suitable for construction, which often results in removal of four to six inches of topsoil. Accordingly, the only areas where previously undisturbed soil is likely to be encountered is in the areas where grading activities will be conducted below the elevations disturbed previously. While it is possible that prior disturbance simply redistributed impacted soil, it is likely that at least some, if not most, of the contaminants that were present (if any) were already removed during the prior development.

- The project will be subject to the best management practices dictated by BAAQMD for dust control (see Mitigation Measure AQ-1) and by the State Water Resources Board for stormwater protection. These measures will help ensure that contamination at the site (if any) would not be disbursed into the air or released to stormdrains, but would instead either remain on the ground to be covered by new development, or hauled off site.

As explained in our Phase I ESA, even if pesticide contamination is present, it would not mean that the public or the environment would be harmed. Instead, as noted in the description of this BERC quoted above, it would mean only that special handling would potentially be required during soil disturbance and during disposal, if required. Standard industry practices previously

mentioned, health and safety protocols would be maintained to assure that worker safety is priority. A licensed contractor will be hired to conduct the grading. The contractor will employ standard industry practices used as if pesticide and metal contamination was present in soil. In addition to the dust control measures previously mentioned, health and safety protocols would be maintained to assure that worker safety is priority. Workers will be required to wear gloves when handling soil, and will be required to wash their hands prior to eating. Soils that are to be off-hauled will be stockpiled and sampled prior to removal.

To ensure that any unknown hazardous materials will not cause offsite impacts, and that they are properly handled and disposed of Mitigation Measure HAZ-1 requires testing and proper disposal Despite the low probability of the presence of contaminated soils, should they be detected through soil sampling, the project applicant will be required to handle and dispose of the soils in accordance with State requirements and industry standards, which require that contaminated wastes be hauled to a qualified, accepting facility. Currently, both the Altamont Landfill and the Kettlemen Hills Landfill are qualified and are accepting such wastes. Because of the low potential for the presence of pesticide contaminated soils at the project site and the implementation of Mitigation Measure HAZ-1, potential impacts are considered less than significant with mitigation incorporated.

Mitigation Measure – Hazardous Materials

HAZ-1 Soils Testing and Disposal. Prior to the issuance of a grading permit or improvement plans, the Project Applicant shall prepare and submit, to the satisfaction of the Community Development Director, a plan to test stockpiled soils prior to their export from the project site. The plan shall provide that soils samples shall be collected using industry-standard practices, tested for organochlorinated pesticides (OCPs) by EPA Method 8081 and for California Title 22 (CAM 17) Metals by EPA Method 6010, and disposed of only at a qualified facility, all as recommended by the applicant's environmental site assessment professional (Moore Twining Associates, Inc.) This plan, the conditions of which shall be incorporated into the first permit that includes ground disturbance, shall establish and describe procedures including, but not limited to: appropriate site control, sampling, remediation (if necessary), and disposal in accordance with applicable State and local requirements. In the event testing reveals unanticipated contaminants of concerns that exceed the California Human Health Screening Levels (CHHSLs) provided by the California Environmental Protection Agency, special handling procedures shall be implemented as directed by the environmental site assessment professional, which measures may include the use of dust masks during construction, dust control, and stockpile covering. The plan shall be amended, as necessary, to maintain the equivalent level of environmental protection, in the event new information becomes available that could affect the implementation of the plan.

Once the proposed project is constructed, hazardous materials would be limited to those associated with property maintenance and building operations, similar to other grocery store uses. These include common landscaping fertilizers, pesticides, paint, solvent, and petroleum

products. Because these materials would be used in limited quantities, they are not considered a significant hazard to the public. Potential impacts associated with the proposed project are, therefore, considered less than significant.

Based on the age of the existing building, the presence of asbestos containing materials (ACMs) is considered likely. Removal or disturbance of these structures may result in the airborne release of asbestos from ACMs. All asbestos-containing material found on the site must be removed prior to demolition or renovation activity in accordance with BAAQMD Regulation 11, Rule 2, including specific requirements for surveying, notification, removal, and disposal of material containing asbestos. Therefore, projects that comply with Regulation 11, Rule 2 would ensure that asbestos-containing materials would be disposed of appropriately and safely. As such potential impacts are considered to be less than significant.

(c) Proximity of hazardous materials to schools

No impact. No schools are presently located within one-quarter mile of the proposed project site. Any future school developed within the surrounding area would be subject to the oversight of the California Department of Toxic Substances Control, as required by State law. New school sites are required to be free of contamination or, if the properties were previously contaminated, they must be rehabilitated under DTSC's oversight. As a result, no impacts have been identified and no mitigation is required.

(d) Located on noted hazardous materials site

Less Than Significant Impact. The onsite address of 777 Sunnyvale Saratoga Road appears on the HAZNET and EMI databases due to its status as a hazardous materials generation and/or storage facility. According to information obtained from the EDR report and the current Hazardous Material Management Plan (HMMP) provided by the CSFP (dated February 25, 2105), materials stored at this address include aged or surplus organics, an unspecified solvent mixture and latex waste. Numerous 50 pound bags of fertilizers, 5-gallon cans of paint and water-proofing, and several 5-gallon containers of propane gas were observed inside and outside the warehouse building. Several pad-mounted transformers were observed on the site and appeared to be in good operating condition on the day of Moore Twining's Site reconnaissance. Solid waste appeared to be limited primarily to trash placed within several trash cans observed inside and outside the warehouse building. No staining, leakage, spills, or odors associated with these materials were found during this assessment.

Due to the reported age of the existing warehouse building, Moore Twining contracted ACC Environmental to conduct a hazardous building materials survey for the structure on the Site. All tested samples did not detect any hazardous building materials.

The findings of the Phase I ESA suggest that materials at the at the project site do not pose a significant hazard to the public or the environment. The assessment has revealed no evidence of recognized environmental conditions (RECs), controlled recognized environmental conditions (CRECs) or historical recognized environmental conditions (HRECs) in connection with the Site. Therefore, potential Impacts of hazardous materials are therefore less than significant.

(e–f) Proximity to a public or private airport

No Impact. The nearest airport is Moffett Federal Airfield located, approximately 2.5 miles north of the project site. The project area is not within the safety zones (or Comprehensive Land Use area) of the airfield. The project site is not located within an airport land use plan, nor within 2 miles of a public airport or public use airport. Therefore, no impact would result from implementation of the project and as such, no mitigation measures are required.

(g) Impair implementation of an emergency response plan or emergency evacuation plan

No Impact. The proposed project would not impair or physically interfere with an adopted emergency response or evacuation plan because the project does not include any actions that would interfere with emergency response and evacuation plan policies adopted by the City or other emergency agency responsible for emergency preparedness. Furthermore, primary access to all major roads would be maintained during construction of the proposed project. Therefore, no associated impacts would occur.

(h) Expose people or structures to wildland fires

No Impact. The project site is not located within a wildland urban interface zone. The proposed project would not expose people or structures to a risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas. The proposed project is located in an urban area, surrounded by existing development including mostly irrigated vegetation. The proposed project would not increase the risk of wildland fires. Therefore, the impact would be less than significant.

Hazardous and Hazardous Materials Cumulative Impacts

The incremental effects of the proposed project related to hazards and hazardous materials, if any, are anticipated to be minimal, and any effects would be site-specific. Therefore, the proposed project would not result in incremental effects to hazards or hazardous materials that could be compounded or increased when considered together with similar effects from other past, present, and reasonably foreseeable probable future projects.

Hydrology and Water Quality

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
9. HYDROLOGY AND WATER QUALITY. Would the project:				
a) Violate any water quality standards or waste discharge requirements?			X	
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 ground water table level (for example, 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)?				X
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.				X
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.				X
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?			X	
f) Otherwise substantially degrade water quality?			X	
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?				X
h) Place within a 100-year flood-hazard area structures which would impede or redirect flood flows?				X
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?				X

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
j) Inundation by seiche, tsunami, or mudflow?				X

(a) Violate water quality or waste discharge requirements

Less Than Significant Impact. According to the Preliminary Grading and Drainage Plan prepared for the proposed project, potential water quality impacts could include short-term construction-related erosion/sedimentation and long-term operational stormwater discharge. If not managed properly, grading and construction activities could cause soils and other pollutants to enter the storm drain system. During heavy rains, this may degrade stormwater quality at downstream locations. To minimize water quality impacts associated with the proposed project, construction activities would be required to comply with a Storm Water Pollution Prevention Plan (SWPPP) consistent with the General Permit for Stormwater Discharge Associated with Construction Activity (Construction Activity General Permit). For operational activities, once the project construction is complete, the proposed project would implement Low Impact Development (LID) and Best Management Practices (BMP's) per the City's Municipal Regional Permit Oder Number R2-2009-0074, Provision C.3. The preliminary Stormwater Management Plan prepare for the project shows that the project includes a 1,500 square foot bio-retention area to detain stormwater. The biofiltration area consists of a landscaped area over a sandy loam soil to allow for surface water to infiltrate the soil to minimize the amount of pollutants that are carried offsite by stormwater flows. The biolfilaration incudes and outlet pipe to discharge any overflow water into the existing stormdrain system.

At present, the entire project site (including OSH portion) has approximately 209,730 square feet of impervious surface area. Once the proposed project is developed, the site will contain 202,330 square feet of impervious area. As such the project will add 7,400 square feet of pervious area. The total amount of pervious surface area will increase from 8.2 percent to 11.4 percent. The decrease of impervious surfaces is expected to decrease runoff and therefore would not be expected to result in a significant change in downstream peak surface flows or runoff volumes from the project site. Therefore, potential impacts on water quality or waste discharge requirements are considered less than significant.

(b) Substantially deplete or interfere with groundwater supplies

No Impact. The proposed project would be supplied with water from the City municipal water supply and does not propose to use any groundwater. For this reason the proposed project would not use any groundwater resources or lower the local groundwater table. The project would incrementally decrease the amount of impervious area on the project site. The project design includes landscaped areas with biolfiltration swales that are designed to collect surface water runoff and allow the water to infiltrate into the soil. Therefore, the project would have no impact on groundwater recharge.

(c) Substantially alter existing drainage patterns and create erosion

No Impact. The proposed project would not substantially alter the existing drainage patterns of the site or vicinity. The site does not include any streams or rivers, which could be altered by the proposed project resulting in substantial erosion and siltation on- or offsite. Surface water runoff would be collected in landscaped areas called biofiltration areas. The biofiltration areas are within the landscaped areas within the area proposed for development. The biofiltration areas are designed to allow surface water to infiltrate into the soil, rather than flow offsite. The infiltration process minimizes siltation and erosion offsite. As such, sedimentation would stay within the biofiltration area. Because the proposed project would not alter any existing streams or drainage patterns, and surface water runoff is controlled onsite, the proposed project would result in no potential impacts from erosion or siltation.

(d) Alter drainage pattern and exceed runoff capacity

No Impact. As described in Response IX(c) above, the proposed project would not substantially alter existing drainage patterns of the site or vicinity. An existing drainage course located offsite would not be altered by the proposed project. The site does not include any streams or rivers, which could be altered by the proposed project. Onsite surface run-off would be collected in proposed drainage facilities (bioretention areas and storm drains). The proposed project would provide detention and stormwater treatment systems to limit the release of stormwater from the site to pre-development conditions; thus, minimizing the potential for flooding to occur on- or offsite. Therefore, this project would have no impact on issues related to flooding.

(e) Exceed runoff or storm drainage system capacity

Less Than Significant Impact. The proposed stormwater control system is consistent with requirements on similar properties and proposes to direct drainage to public facilities and limit impact on adjacent properties. Although runoff from the proposed residence would be collected in a pipe system, storm flows would be discharged slowly into subsoils through the use of on-site biofiltration areas, protecting surface water quality. Design and sizing of on-site percolation areas would be subject to review and approval by the City, and such approval would reduce the potential for downstream flooding and erosion hazards. Potential impacts are considered less than significant.

(f) Otherwise substantially degrade water quality

Less Than Significant Impact. No significant impacts were found in regards to degrading water quality. No additional water quality impacts other than those described earlier in this section are anticipated. The proposed project is not anticipated to result in water quality impacts. Short-term impacts that could result from construction would be minimal and there are no long-term operational impacts on water quality. Thus, impacts in this regard would be less that significant.

(g–h) Structures within 100-year flood hazard area

No impact. The proposed project area is not located within a mapped 100-year flood hazard area and therefore no structures would be placed in such an area as part of the proposed project. Further, the project site is not located in, near, or next to a stream or watercourse that would be subject to flooding. Therefore, the project would not place housing within a flood hazard area and the project would have no impact with regards to flooding.

(i) Hazards due to flood risk

No impact. The proposed project area is not located within a 100-year floodplain or in a dam inundation risk area. The project would have no effect on flood flows. Therefore, no impact would occur.

j) Inundation by seiche, tsunami, or mudflow

No impact. The proposed project is not located in close proximity to an area subject to flooding due to tsunamis or seiches resulting in levee failure, and would not be subject to mudflows as a result of a seiche because the project is approximately 4 miles from the San Francisco Bay and approximately 125 feet higher in elevation. Additionally, due to the flat topography of the proposed project site, mudflows could not occur. As a result, no impact would occur.

Hydrology and Water Quality Cumulative Impacts

The potential impacts related to hydrology and storm water runoff are typically site specific and site specific BMPs are implemented at the project level. The analysis above determined that the implementation of the proposed project would not result in significant impacts. Therefore, the project would have no impact under most hydrology criteria, and therefore could not contribute toward a cumulative impact. In regards to project impacts that would be considered less than significant, such impacts are not expected to result in compounded or increased impacts when considered together with similar effects from other past, present, and reasonably foreseeable probable future projects, as other projects will be subject to similar laws and requirements regarding hydrology practices. Potential impacts are considered less than cumulative considerable.

Land Use and Planning

ENVIRONMENTAL IMPACTS Issues		Potentially Significant Issues	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
10.	**LAND USE AND PLANNING. Would the project:**				
a)	Physically divide an established community?				X
b)	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				X
c)	Conflict with any applicable Habitat Conservation Plan or Natural Community Conservation Plan?				X

(a) Physically divide an established community

No Impact. The property is located within the C-2/ECR: Commercial - Highway Business Zoning District/El Camino Real Combining District, which is intended to provide commercial land uses along the El Camino Real Corridor. The proposed project is an infill development located on a property that is zoned for commercial development. The project does not propose any new roadways or other significant infrastructure improvements that would restrict access or require a diversion for existing travel routes. For these reasons the proposed project would have no impact related to physically dividing a community.

(b) Consistency with land use plan or policy

No Impact. The addition of approximately 4,280 square feet of building area requires approval of a use permit. The proposed project is consistent with the existing C-2 zoning classification and El Camino Real (ECR) Combining District requirements. The proposed project would be consistent and would not be in conflict with the City of Sunnyvale General Plan. Based on the existing zoning designations, the project site has an allowable building area of 37,818 square feet and 11,600 square feet is proposed to replace the existing 6,100 square feet. The maximum building height on the site is 55 feet and the project proposes a maximum height of 23 feet, six inches. No conflicts with any land use plan, policy or regulation have been identified. Therefore, the project has no impact as a result of conflicts with applicable land use plans or regulations adopted for the purpose of protecting the environment.

(c) Conflict with any applicable habitat conservation plan or natural community conservation plan

No Impact. There are no adopted habitat conservation or natural community conservation plans that are applicable to properties within Sunnyvale. The project does not result in an impact on any sensitive plant or animal species covered by a habitat conservation plan or natural community conservation plan, nor does it hinder the implementation or establishing of such plans. As such, the project would have no impact with regard to conflicts with any applicable habitat conservation plan or natural community conservation plan.

Cumulative Impacts

The project has no impacts and therefore could not contribute towards any cumulative impacts. The proposed project is an infill development located on a property that is zoned for commercial development. The project does not propose any new roadways or other significant infrastructure improvements that would restrict access or require a diversion for existing travel routes. The project does not result in an impact on any sensitive plant or animal species covered by a habitat conservation plan or natural community conservation plan, nor does it hinder the implementation or establishing of such plans. For these reasons, the project would cumulatively contribute to land use conflicts and potential impacts are considered less than cumulative considerable.

Mineral Resources

ENVIRONMENTAL IMPACTS Issues		Potentially Significant Issues	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
11.	**MINERAL RESOURCES. Would the project:**				
a)	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
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?				X

(a–b) Loss of availability of a known mineral resource or locally-important mineral resource recovery site

No Impact. The Lehigh Permanente Quarry, the closest active commercial rock quarry operating in Santa Clara County, is located approximately five miles southeast of the project site. The project does not propose to interfere with the continued operation of the Lehigh

Permanente Quarry. The project site is not delineated within the City's General Plan, a specific plan, or other land use plan as a locally-important mineral resource recovery site. As such, the project would have no impact with regard to the loss of availability of a locally important mineral recovery site.

Cumulative Impacts

The project has no impacts and therefore could not contribute towards any cumulative impacts.

Noise

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
12. 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?		X		
b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?			X	
c) Substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
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?				X
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?				X

(a) Exposure to, or generation of, noise in excess of standards

Less Than Significant Impact with Mitigation Incorporated. Sound is mechanical energy transmitted by pressure waves in a compressible medium such as air, and is characterized by both its amplitude and frequency (or pitch). The human ear does not hear all frequencies equally. In particular, the ear deemphasizes low and very high frequencies. To better approximate the sensitivity of human hearing, the A-weighted decibel scale (dBA) has been developed. On this scale, the human range of hearing extends from approximately three dBA to around 140 dBA.

Noise is generally defined as unwanted or excessive sound, which can vary in intensity by over one million times within the range of human hearing; therefore, a logarithmic scale, known as the decibel scale (dB), is used to quantify sound intensity. Noise can be generated by a number of sources, including mobile sources such as automobiles, trucks, and airplanes, and stationary sources such as construction sites, machinery, and industrial operations. Noise generated by mobile sources typically attenuates (is reduced) at a rate between three dBA and 4.5 dBA per doubling of distance. The rate depends on the ground surface and the number or type of objects between the noise source and the receiver. Hard and flat surfaces, such as concrete or asphalt, have an attenuation rate of three dBA per doubling of distance. Soft surfaces, such as uneven or vegetated terrain, have an attenuation rate of about 4.5 dBA per doubling of distance. Noise generated by stationary sources typically attenuates at a rate between 6 dBA and about 7.5 dBA per doubling of distance.

There are a number of metrics used to characterize community noise exposure, which fluctuate constantly over time. One such metric, the equivalent sound level (Leq), represents a constant sound that, over the specified period, has the same sound energy as the time-varying sound. Noise exposure over a longer period of time is often evaluated based on the Day-Night Sound Level (Ldn). This is a measure of 24-hour noise levels that incorporates a 10-dBA penalty for sounds occurring between 10:00 p.m. and 7:00 a.m. The penalty is intended to reflect the increased human sensitivity to noises occurring during nighttime hours, particularly at times when people are sleeping and there are lower ambient noise conditions. Typical Ldn noise levels for light and medium density residential areas range from 55 dBA to 65 dBA.

Two of the primary factors that reduce levels of environmental sounds are increasing the distance between the sound source to the receiver and having intervening obstacles such as walls, buildings, or terrain features between the sound source and the receiver. Factors that act to increase the loudness of environmental sounds include moving the sound source closer to the receiver, sound enhancements caused by reflections, and focusing caused by various meteorological conditions.

State of California

The State Office of Planning and Research Noise Element Guidelines include recommended exterior and interior noise level standards for local jurisdictions to identify and prevent the creation of incompatible land uses due to noise. The Noise Element Guidelines contain a land

use compatibility table that describes the compatibility of various land uses with a range of environmental noise levels in terms of the Community Noise Equivalent Level (CNEL).

City of Sunnyvale

General Plan

The Safety and Noise Chapter of the Sunnyvale General Plan establishes goals and policies for reducing noise levels in Sunnyvale. Policies aimed at reducing noise levels must address specific sources of unwanted noise, as well as noise-sensitive receptors. The Safety and Noise Chapter contains guidelines for use in land use planning to reduce future noise and land use incompatibilities (Figure 6-5 of the Safety and Noise Chapter) and summarized in Table 8, Land Use Compatibility for Community Noise Environments.

Sunnyvale has also established standards for noise impacts from new development on existing uses. These noise limits are shown in Table 9, Significant Noise Impacts from New Development on Existing Land Use, (from Figure 6-6 of the Safety and Noise Chapter).

Table 8 – Land Use Compatibility for Community Noise Environments

Land Use Category	Community Noise Exposure (Ldn or CNEL, dBA)		
	Normally Acceptable	Conditionally Acceptable	Clearly Unacceptable
Residential, Hotels, Motels	55 – 60	60 – 75	75 – 85
Outdoor Sports and Recreation, Neighborhood Parks and Playgrounds	55 – 65	65 – 80	80 – 85
Schools, Libraries, Museums, Hospitals, Personal Care, Meeting Halls, Churches	55 – 60	60 – 75	75 – 85
Office Buildings, Commercial and Professional Businesses	55 – 70	70 – 80	80 – 85
Auditoriums, Concert Halls, Amphitheaters	N/A	55 – 70	80 – 85
Industrial, Manufacturing, Utilities, Agriculture	55 – 70	70 – 85	N/A

NA: Not Applicable; Ldn: average day/night sound level; CNEL: Community Noise Equivalent Level

Notes:
Normally Acceptable - Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
Conditionally Acceptable - Specific land use may be permitted only after detailed analysis of the noise reduction requirements and needed noise insulation features included in the design.
Clearly Unacceptable – New construction or development should generally not be undertaken because mitigation is usually not feasible to comply with noise element policies.

Source: City of Sunnyvale, General Plan Safety and Noise Element, 2011.

Table 9 – Significant Noise Impacts from New Development on Existing Land Use

L_{dn} Category of Existing Development	Noise Increase Considered "Significant" over Existing Noise Levels
Normally Acceptable	An increase of more than 3 dBA and the total L_{dn} exceeds the "normally acceptable category"
Normally Acceptable	An increase of more than 5 dBA
Conditionally Acceptable	An increase of more than 3 dBA
Unacceptable	An increase of more than 3 dBA
Source: City of Sunnyvale, General Plan Safety and Noise Element, 2011.	

Municipal Code

Chapter 16.08 (Administrative Code) of the City's Municipal Code specifies noise limits for construction activities. The Municipal Code restricts construction activities to the hours of 7:00 a.m. to 6:00 p.m. Monday through Friday, and 8:00 a.m. to 5:00 p.m. on Saturdays. There shall be no construction activity on Sunday or federal holidays when city offices are closed. The ordinance also states that no loud environmentally disruptive noises, such as air compressors without mufflers, continuously running motors or generators, loud playing musical instruments, radios, etc., are allowed where such noises may be a nuisance to adjacent residential neighborhoods.

Chapter 19.42 (Operating Standards) of the Municipal Code includes noise limits from certain properties. Specifically, Section 19.42.030 of the Municipal Code states the following:

a) Operational noise shall not exceed 75 dBA at any point on the property line of the premises upon which the noise or sound is generated or produced; provided, however, that the noise or sound level shall not exceed 50 dBA during nighttime or 60 dBA during daytime hours at any point on adjacent residentially zoned property. If the noise occurs during nighttime hours and the enforcing officer has determined that the noise involves a steady, audible tone such as a whine, screech or hum, or is a staccato or intermittent noise (e.g., hammering) or includes music or speech, the allowable noise or sound level shall not exceed 45 dBA.
b) Powered equipment used on a temporary, occasional or infrequent basis which produces a noise greater than the applicable operational noise limit set forth in subsection (a) shall be used only during daytime hours when used adjacent to a property with a residential zoning district. Powered equipment used on other than a temporary, occasional or infrequent basis shall comply with the operational noise requirements. For the purpose of this section, powered equipment does not include leaf blowers. Construction activity regulated by Title 16 of this code shall not be governed by this section.
c) It is unlawful for any person to make or allow to be made a nighttime delivery to a commercial or industrial establishment when the loading/unloading area of the establishment is adjacent to a property in a residential zoning district. Businesses legally

operating at a specific location as of February 1, 1995, are exempt from this requirement.

d) A "leaf blower" is a small, combustion engine-powered device used for property or landscape maintenance that can be hand-held or carried on the operator's back and which operates by propelling air under pressure through a cylindrical tube. It is unlawful for any person to operate a leaf blower on private property in or adjacent to a residential area except between the hours of 8:00 a.m. and 8:00 p.m. Effective January 1, 2000, all leaf blowers operated in or adjacent to a residential area shall operate at or below a noise level of sixty-five dBA at a distance of fifty feet, as determined by a test conducted by the American National Standards Institute or an equivalent. The dBA rating shall be prominently displayed on the leaf blower.

Additionally, Municipal Code Section 19.48.100 includes the following standards related to mechanical equipment:

> Mechanical equipment, such as but not limited to heating or air conditioning units, shall not be located between the face of building and the street, and shall be screened from view. Any mechanical equipment which is higher than eighteen inches must meet the side and rear yard setbacks of the zoning district of the property where such equipment is located. All mechanical equipment shall comply with the noise requirements set forth in Section 19.42.030.

Existing Mobile Sources

The majority of the existing noise in the project area is generated from vehicle sources along Mathilda Avenue, and Sunnyvale Saratoga Road. According to the General Plan Safety and Noise Element Figure 6-7, the recorded average noise levels along Mathilda Avenue are 70 to 74 dBA Ldn and along Sunnyvale Saratoga Road between Mathilda Avenue and El Camino Real are 65 to 69 dBA Ldn, measured 50 feet from the edge of each major roadway. Additionally, existing noise in the project vicinity is generated from Santa Clara Valley Transportation Authority transit services that serve the project site, located approximately 650 feet northeast of the project site.

Existing Stationary Sources

The project area is located in an urbanized area. The primary sources of stationary noise in the project vicinity are urban-related activities associated with the operations of commercial uses to the north and east, and multi-residential uses to the northwest and south. The noise associated with these sources may represent a single-event noise occurrence, short-term, or long-term/continuous noise.

Short-Term Construction

Construction of the proposed project would occur over approximately a one-year period and would include demolition, grading, building construction, paving, and application of architectural coatings. Ground-borne noise and other types of construction-related noise impacts would typically occur during excavation activities of the grading phase. This phase of

construction has the potential to create the highest levels of noise. Typical noise levels generated by construction equipment are shown in Table 10, Maximum Noise Levels Generated by Construction Equipment. It should be noted that the noise levels identified in Table 10 are maximum sound levels (Lmax), which are the highest individual sound occurring at an individual time period. Operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Other primary sources of acoustical disturbance would be due to random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts).

Table 10 – Maximum Noise Levels Generated by Construction Equipment

Type of Equipment	Acoustical Use	L_{max} at 50 Feet (dBA)
Concrete Saw	20	90
Crane	16	81
Concrete Mixer Truck	40	79
Backhoe	40	78
Dozer	40	82
Excavator	40	81
Forklift	40	78
Paver	50	77
Roller	20	80
Tractor	40	84
Water Truck	40	80
Grader	40	85
General Industrial Equipment	50	85

Note:
1 – Acoustical Use Factor (percent): Estimates the fraction of time each piece of construction equipment is operating at full power (i.e., its loudest condition) during a

Source: Federal Highway Administration, Roadway Construction Noise Model (FHWA-HEP-05-054), January 2006.

Pursuant to Municipal Code Section 16.08.030, construction activities may occur between the hours of 7:00 a.m. and 6:00 p.m. on weekdays, 8:00 a.m. and 5:00 p.m. Saturdays, and is prohibited on Sundays and holidays. These permitted hours of construction are included in the code in recognition that construction activities undertaken during daytime hours are a typical part of living in an urban environment and do not cause a significant disruption. The potential for construction-related noise to affect nearby residential receptors would depend on the location and proximity of construction activities to these receptors. It should be noted that the noise levels depicted in Table 10 are maximum noise levels, which would occur sporadically when construction equipment is operated in proximity to sensitive receptors. Hours of construction would be limited to the time limits specified in the Municipal Code. Additionally, to further reduce the potential for noise impacts, Mitigation Measure NOI-1 would be implemented to incorporate best management practices during construction and ensure that nuisance noise does not occur. Implementation of Mitigation Measure NOI-1 would further

minimize impacts from construction noise as it requires construction equipment to be equipped with properly operating and maintained mufflers and other state required noise attenuation devices. Thus, with mitigation, a less than significant noise impact would result from construction activities.

Long-Term Operational impacts

Off-Site Mobile Noise

Future development generated by the proposed project would result in additional traffic on adjacent roadways, thereby increasing vehicular noise in the vicinity of existing and proposed land uses. Based on the Transportation Operations Analysis, prepared by Kimley-Horn (dated January 2016, included as Appendix E), the proposed project would incrementally increase traffic along surrounding roadways during long-term operational activities. The Traffic Memorandum concludes that the proposed project would result in a nominal increase in daily trips as the project is forecasted to generate approximately 978 daily trips. Therefore, the proposed project would not result in a substantial amount of additional traffic on adjacent roadways, and subsequently vehicular noise in the vicinity of existing and proposed land uses would remain relatively the same. Therefore, a less than significant impact would occur in this regard.

On-Site Mobile Noise

The project proposes to replace a 6,100 SF OSH customer pick-up facility with an 11,600 square-foot grocery retail building with a carport covering approximately nine parking spaces, intended as a pick-up area for customers. The project site is surrounded by developed general commercial buildings and multi-family residences, and the on-site vehicles would not generate excessive noise as speeds would be similar to the existing operations. Further, the project would generate an increase of approximately 978 daily trips, and would be similar to the noise environment in the existing area (general commercial). The project would not generate substantial noise levels in exceedance of City standards, and a less than significant impact would occur.

Stationary Noise Impacts

The proposed project is anticipated to generate noise that is typical of these facilities including delivery trucks traveling on the site, mechanical equipment, and parking lot activities.

Slow-Moving Trucks (Deliveries)

The proposed project may involve occasional deliveries from slow-moving trucks. Typically, trucks used to make deliveries can generate a maximum noise level of 75 dBA at a distance of 50 feet. These are levels generated by a truck that is operated by a typically experienced driver with typically applied accelerations. Higher noise levels may be generated by the excessive application of power. Lower levels may be achieved, but would not be considered representative of a nominal truck operation.

The project proposes four truck delivery trips per day. Any deliveries to the project site would occur via the existing three facility entrances along Sunnyvale-Saratoga Road and two driveways along South Mathilda Avenue. These are typical noise levels of vehicles accessing the site and similar to traffic associated with parking lots. In addition, the project involves warehouse, and docking operations consisting of grocery retail item deliveries. It should be noted that intervening structures and walls would further attenuate noise generated by truck and loading dock noise. Similar to the adjacent Orchard Supply Hardware (OSH) and commercial uses in the project vicinity, impacts from the proposed truck deliveries would not result in substantially greater noise levels than currently exist on and surround the project site. Therefore, stationary noise impacts from slow-moving trucks would be less than significant.

Mechanical Equipment

Typically, mechanical equipment noise is 55 dBA at 50 feet from the source. Heating, ventilating, and air conditioning (HVAC) units would be included on the roof of the proposed grocery retail building. Additionally, the HVAC units would be shielded by a parapet, which would further attenuate noise. As the project would not place mechanical equipment associated with the project near residential uses, noise from the HVAC units would not be perceptible at the nearest residents (existing multi-family residences located approximately 100 feet to the south of the proposed building). Impacts from mechanical equipment would be less than significant.

Parking Areas

Traffic associated with parking lots is typically not of sufficient volume to exceed community noise standards, which are based on a time-averaged scale such as the CNEL scale. However, the instantaneous maximum sound levels generated by a car door slamming, engine starting up and car passbys may be an annoyance to adjacent noise-sensitive receptors. Estimates of the maximum noise levels associated with some parking lot activities are presented in Table 11, Typical Noise Levels Generated by Parking Lots. Conversations in parking areas may also be an annoyance to adjacent sensitive receptors. Sound levels of speech typically range from 33 dBA at 48 feet for normal speech to 50 dBA at 50 feet for very loud speech. It should be noted that parking lot noise are instantaneous noise levels compared to noise standards in the CNEL scale, which are averaged over time. As a result, actual noise levels over time resulting from parking lot activities would be far lower.

The proposed parking for the project site would be reconfigured from the existing parking layout. The project proposes a reduction of total parking by approximately 37 parking spaces to nine onsite parking spaces. The closest that the proposed parking area would be located to noise-sensitive receptors is 100 feet to the south and 400 feet to the northwest. Parking lot noise would be partially masked by background noise from existing adjacent traffic along Sunnyvale Saratoga Road and the existing OSH building, adjacent to the proposed building. Additionally, parking lot noise currently exists in the project vicinity from current operations associated with the existing OSH, and commercial, restaurant, and office uses to the north and east of the project site. Therefore, the nearby residential uses would not be exposed to

excessive noise from the parking area. The proposed parking would not result in substantially greater noise levels than currently exist at the project site. Noise associated with parking lot activities is not anticipated to exceed the City's Noise Standards during operation. Therefore, noise impacts from parking lots would be less than significant.

Table 11 – Typical Noise Levels Generated by Parking Lots

Noise Source	Maximum Noise Levels
Car door slamming	63 dBA Leq
Car starting	60 dBA Leq
Car idling	61 dBA Leq

Mitigation Measure – Noise

NOI-1 **Construction Noise.** Prior to Grading Permit issuance, the Project Applicant shall demonstrate, to the satisfaction of the City of Sunnyvale Community Development Department that the proposed project complies with the following:

- Construction contracts specify that all construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and other state required noise attenuation devices.
- Property owners and occupants located within 100 feet of the project boundary shall be sent a notice, at least 15 days prior to commencement of construction of each phase, regarding the construction schedule of the proposed project. A sign, legible at a distance of 50 feet shall also be posted at the project construction site. All notices and signs shall be reviewed and approved by the City of Sunnyvale Community Development Department, prior to mailing or posting and shall indicate the dates and duration of construction activities, as well as provide a contact name and a telephone number where residents can inquire about the construction process and register complaints.
- The Contractor shall provide evidence that a construction staff member would be designated as a Noise Disturbance Coordinator and would be present on-site during construction activities. The Noise Disturbance Coordinator shall be responsible for responding to any local complaints about construction noise. When a complaint is received, the Noise Disturbance Coordinator shall notify the City within 24-hours of the complaint and determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and shall implement reasonable measures to resolve the complaint, as deemed acceptable by the Community Development Department. All notices that are sent to residential units immediately surrounding the construction site and all signs posted at the construction site shall include the contact name and the telephone number for the Noise Disturbance Coordinator.
- Prior to issuance of any Grading or Building Permit, the Project Applicant shall demonstrate to the satisfaction of the Community Development Department that

construction noise reduction methods shall be used where feasible. These reduction methods include shutting off idling equipment, installing temporary acoustic barriers around stationary construction noise sources, maximizing the distance between construction equipment staging areas and occupied residential areas, and electric air compressors and similar power tools.

- Construction haul routes shall be designed to avoid noise sensitive uses (e.g., residences, convalescent homes, etc.), to the extent feasible.
- During construction, stationary construction equipment shall be placed such that emitted noise is directed away from sensitive noise receivers.
- Pursuant to the Municipal Code Chapter 16.08, construction activities shall occur between the hours of 7:00 a.m. and 6:00 p.m. on weekdays, 7:00 a.m. and 5:00 p.m. on Saturdays, and shall be prohibited on Sundays and holidays.

(b) Exposure to ground borne vibration or ground borne vibration

Less Than Significant Impact.

Short-Term Construction

Project construction can generate varying degrees of groundborne vibration, depending on the construction procedure and the construction equipment used. Operation of construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The effect on buildings located in the vicinity of the construction site often varies depending on soil type, ground strata, and construction characteristics of the receiver building(s). The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage at the highest levels. Groundborne vibrations from construction activities rarely reach levels that damage structures.

The types of construction vibration impact include human annoyance and building damage. Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Building damage can be cosmetic or structural. Ordinary buildings that are not particularly fragile would not experience any cosmetic damage (e.g., plaster cracks) at distances beyond 30 feet. This distance can vary substantially depending on the soil composition and underground geological layer between vibration source and receiver. In addition, not all buildings respond similarly to vibration generated by construction equipment. For example, for a building that is constructed with reinforced concrete with no plaster, the Federal Transit Administration (FTA) guidelines show that a vibration level of up to 0.50 inch per second (in/sec) (102 velocity decibels [VdB]) is considered safe and would not result in any construction vibration damage. The vibration produced by construction equipment is illustrated in Table 12, Typical Vibration Levels for Construction Equipment.

Table 12 – Typical Vibration Levels for Construction Equipment

Equipment	Approximate peak	Approximate peak	Approximate peak
Large bulldozer	0.089	0.011	0.0014
Loaded trucks	0.076	0.010	0.0012
Small bulldozer	0.003	0.0004	0.0005

Notes:
1 – Federal Transit Administration, Transit Noise and Vibration Impact Assessment Guidelines, May 2006. Table 12-2.
2 – Calculated using the following formula:

$PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$

where: PPV (equip) = the peak particle velocity in in/sec of the equipment adjusted for the distance
PPV (ref) = the reference vibration level in in/sec from Table 12-2 of the FTA Transit Noise and Vibration Impact Assessment Guidelines
D = the distance from the equipment to the receiver

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment Guidelines, May 2006.

Groundborne vibration decreases rapidly with distance. As indicated in Table 12, based on the FTA data, vibration velocities from typical heavy construction equipment operation that would be used during project construction range from 0.003 to 0.644 in/sec peak particle velocity (PPV) at 25 feet from the source of activity. With regard to the proposed project, groundborne vibration would be generated primarily during grading activities on-site and by off-site haul-truck travel. The nearest sensitive receptor to the proposed project is multi-family residences located 100 feet to the south. As indicated in Table 12, based on the FTA data, vibration velocities from typical heavy construction equipment operation that would be used during project construction range from 0.003 to 0.089 inch-per-second PPV at 25 feet from the source of activity, and would range from 0.0004 to 0.011 inch-per-second PPV at 100 feet and 0.0005 to 0.0014 inch-per-second PPV at 400 feet. As construction activities would occur approximately 100 feet away from the closest sensitive receptors, the proposed construction activities would not exceed the 0.2 in/sec PPV significance threshold for vibration. Therefore, vibration impacts associated with pile driving and other construction equipment used for the project would be less than significant.

Long-Term Operational impacts

The project proposes a grocery retail store with nine parking spaces that would not generate ground-borne vibration that could be felt at surrounding uses. The proposed project would not involve railroads or substantial heavy truck operations, and therefore would not result in vibration impacts at surrounding uses. As such, no impact would occur in this regard.

(c) Ambient noise levels

Less Than Significant Impact. See discussion in XII(a), above.

(d) Substantial temporary noise increase

Less Than Significant Impact. See discussion in XII(a), above.

(e–f) Excessive noise level near a public or private airport

No Impact. The closest private airstrip is the Moffett Federal Airfield, which is located 2.75 miles northwest of the project site. According to Comprehensive Land Use Plan Santa Clara County Moffett Federal Airfield, the proposed project is not located within the Airport Influence Area. There is no public airport, public use airport, or private airstrip located within two miles of the project site. Therefore, the proposed project would not expose people residing or working in the area to excessive noise levels and no impacts would occur in this regard.

Noise Cumulative Impacts

With the implementation of Mitigation Measure NOI-1, the potential noise impacts as a result of exposure to construction noise levels from project site would be reduced to less than significant. Noise increases associated with project construction would occur in areas immediately adjacent to the site as well as areas adjacent to access and haul routes. Construction activities would be limited by City Code requirements for limiting construction hours and would limit construction activities and related noise to daytime hours. However, each cumulative project would require separate discretionary approval and CEQA assessment, which would address potential noise impacts and identify necessary attenuation measures, where appropriate. There are no approved, pending, or potential projects located immediately adjacent to the site that would contribute to cumulative construction-related noise increases in areas immediately adjacent to the site.

As noise dissipates as it travels away from its source, noise impacts from stationary sources would be limited to each of the respective sites and their vicinities. Stationary noise sources would be limited in their impacts as the cumulative projects and proposed project would be separated by intervening structures. Due to site distances and these intervening structures, and the temporary nature of construction activities, cumulative stationary noise impacts would be less than significant. As noted above, the proposed project would not result in stationary long-term equipment that would significantly affect surrounding sensitive receptors. Thus, the project would not contribute to cumulative impacts and impacts in this regard are not cumulatively considerable.

Project implementation would not create a noticeable change in ambient traffic noise levels. As a result, the proposed project would not create cumulatively considerable noise impacts due to the relatively low trip generation. All future development within the project area and surrounding region would be subject to comply with City and State guidelines regarding noise abatement and insulation standards. There are no approved, pending, or potential projects located immediately adjacent to the site and therefore, no cumulative operational noise increases are expected to occur in areas immediately adjacent to the site (no impact). Therefore, the project would result in less than significant cumulative noise impacts

Population and Housing

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
13. 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)?			X	
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X

(a) Population growth

Less Than Significant Impact. The project does not propose any new residential units or new businesses that would directly induce substantial population growth. The addition of approximately 4,820 square feet of commercial space would not induce substantial growth in the area because it would not result in a substantial number of new jobs that would require a significant increase in the housing supply in the area, or result in new development pressures in undeveloped areas. The project does not propose the extension of any roadways or infrastructure such as water or sewer service, nor significantly expand any of those services in a fashion that would remove a barrier to growth that previously inhibited growth in the area. The project would not change any of the population growth projections evaluated in the City of Sunnyvale General Plan. Therefore, the project would have a less than significant impact on population growth.

(b–c) Housing and resident displacement

No Impact. The project area does not contain any existing housing units and would not cause any existing housing units to be displaced. The proposed project would not necessitate the construction of replacement housing elsewhere. As a result, there would be no impacts on housing displacement.

Public Services

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
14. PUBLIC SERVICES. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or need for new or physical 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:				
a) Fire protection?			X	
b) Police protection?			X	
c) Schools?			X	
d) Parks?			X	
e) Other public facilities?			X	

(a) Fire protection

Less Than Significant Impact. The Sunnyvale Department of Public Safety Fire Services provides fire protection services to the project area. There are three fire stations (of the six fire stations within the City of Sunnyvale) that would serve the project area. Currently, Station 1 would provide the primary fire protection service to the Specific Plan area, with Stations 3 and 4 providing auxiliary support when needed. Station 1 is located at 171 North Mathilda Avenue, approximately 1.5 miles from the project area, near the intersection of the Central Expressway and Mathilda Avenue.

Station 3 is located at 910 Ticonderoga Drive, approximately 1.8 miles from the project area.

Station 4 is located at 996 South Wolfe Road, approximately 1.7 miles from the project area.

The Department of Public Safety has the following response time goals:

1. Fire response to Emergency Events will be responded to within 5 minutes 42 seconds or less from dispatch to on-scene arrival for 92% of emergency events.
2. The response time to a Fire Event will be within 6 minutes 14 seconds or less from dispatch to on-scene arrival by Fire apparatus for 86% of emergency events.
3. Fire response to EMS Events will be responded to within 5 minutes 42 seconds or less from dispatch to on-scene arrival for 92% of EMS emergency events.

The increased employment generated by the proposed project would not exceed the planned fire protection provision for the City. The project site is located within City limits and is surrounded by existing uses that are currently within the service areas of the Sunnyvale Fire Department. No new equipment or new fire stations would be required to serve the proposed project. The project does not require an extension of the existing fire service area that would significantly extend response times. The project would be designed to meet the current Building Code requirements, and the fire department would require project plans prior to issuance of a building permit to ensure adequate emergency services can be provided. As such, the impact would be less than significant.

(b) Police protection

Less Than Significant Impact. Public Safety services for the project site include police protection by the City of Sunnyvale Police Services Bureau. The police department serves approximately 24 square miles and a population of approximately 141,000 residents. The location of the Public Safety office that would serve the project area is 700 All America Way, approximately 1 mile away near Mathilda Avenue and El Camino Real.

The average response times to calls within the City are recorded by “emergency” or “urgent”. The average response time for emergency calls is 4 minutes, 41 seconds. The average response time for urgent calls is 5 minutes, 54 seconds.

The employment generated from development on the project site would not represent a substantial increase, and the project site is currently within the service area of the Sunnyvale Police Station at 700 All American Way, therefore the proposed project would not trigger the need to construct new police or altered facilities. The project will not result in a significant increase in traffic congestion that could inhibit the police department’s ability to meet its response time goals. Additionally, there is no projected significant increase in the number of calls for police service in the project area. Therefore, the effect on police protection will result in a less than significant impact.

(c) Schools

Less Than Significant Impact. The project area is located within the jurisdictions of the Sunnyvale School District (SSD) and Fremont Union High School District (FUHSD). SSD encompasses an area within, but not coterminous with the City of Sunnyvale, while the FUHSD includes sections of the Cities of Sunnyvale, Cupertino, Saratoga and San Jose within its service area. SSD provides services to elementary through middle school grade students while FUHSD provides service to high school students.

Sunnyvale School District

Elementary through Middle School students in the vicinity of the project area are served by the Sunnyvale School District (SSD). Of the ten schools within SESD, eight are elementary schools and two are middle schools. District enrollment is approximately 6,800 students. The District has experienced steady enrollment growth over the past few years and this trend is expected to continue for the foreseeable future. All schools within the SSD were built 25 or more years ago

and are in need of renovation. In November 2004, voters in the Sunnyvale School District approved Measure P, a $120 million General Obligation Bond measure, to maintain a safe learning environment at Sunnyvale's elementary and middle schools by upgrading infrastructure, improving and expanding school libraries, repairing aging facilities, and constructing new classroom and student report facilities. In November 2013, voters in the Sunnyvale School District passed Measure G, a $96 million school bond measure to continue rebuilding Sunnyvale School District. The bond proceeds provide funding for technology improvements, comparable classrooms for all students and increasing energy efficiency efforts throughout Sunnyvale School District. However, these bond measure funds are expected to cover only a portion of the district-wide modernization program, and are insufficient to create the capacity needed to serve future growth in student enrollment. To accommodate additional students that would occur with new commercial development, SSD charges a fee of $0.33 per every square foot of commercial office space.

Fremont Union High School District

FUHSD operates five high schools within the cities of Sunnyvale, San Jose and Cupertino. The nearest school to the project area is Fremont High School (FHS), which serves high school students in the City of Sunnyvale. FHS is located at 1279 Sunnyvale-Saratoga Road and has aprojected enrollment of approximately 2,024 and 2,336 in grades 9-12 for the school 2014/15 year. The District does not currently use portable or temporary classrooms at Fremont High School, but will be adding at least 16 more classrooms at Freemont High School in the next three years, with an expectation that more will be needed by the year 2020. FUHSD currently has no plans for new schools, but is experiencing long term enrollment growth estimated to be over 2,000 additional students in the next 10 years. Additional classrooms, equipment, supplies and staff will be needed to meet these enrollment challenges. Currently, the fees from FUHSD are $0.19 or $0.20 per square foot on commercial/industrial development.

Implementation of the proposed project would not result in the direct addition of new housing units. However, there is a relationship existing between commercial development and an increase in the number of school-age children as the result of increased employees who reside within the school district. Therefore, the SSD and FUHSD require the payment of development fees based on a per square foot basis of new commercial development. These fees are collected at the building permit stage and are paid prior to building construction. The payment of school fees is consistent with Section 65995(3)(h) of the California Government Code and addresses indirect impacts on school facilities and potential impacts are considered less than significant.

(d) Parks

Less Than Significant Impact. The closest park to the Project area is the Las Palmas Park, located approximately half a mile west of the project area. No changes to this park and trail are proposed with the current project. The proposed project will not create a significant increase in population and therefore not bring in a significantly higher number of new park users, therefore the project will not result in a need for any new recreational area. The project will not significantly affect the surrounding residential area or interfere with park planning projects.

Therefore, potential impacts are considered to be less than significant. See Section XV for further discussion of impacts on recreation.

(e) Other public facilities

Less Than Significant Impact. Other public utilities include natural gas, electric and cable service. According to the MPSP, natural gas and electric power are supplied to the MPSP area by Pacific Gas and Electric Company (PG&E) under a franchise agreement with the City of Sunnyvale. Although the infrastructure for these services may be realigned within some areas within the project site, impacts are considered less than significant because no new facilities would need to be constructed to serve the project. For these reasons, potential impacts would be less than significant.

Cumulative Impacts

The proposed project would not result in a significant impact to any public services or facilities and does not contribute to cumulatively considerable impacts on public services when combined with other proposed projects in the area. The proposed project and other proposed and pending projects in the surrounding area would not result in growth beyond what has been planned in the General Plan. Potential cumulative impacts are considered not to be cumulatively considerable and less than significant.

Recreation

ENVIRONMENTAL IMPACTS Issues		Potentially Significant Issues	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
15.	**RECREATION. Would the project:**				
a)	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?			X	
b)	Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X

(a) Increase the use of existing recreation facilities

Less Than Significant Impact. As stated in Section XIV, the proposed project would not result in a significant increase in the population or result in a significantly higher number of park users. The proposed project would not result in an increase in the use of recreational facilities such

that physical deterioration would occur or be accelerated. The proposed project's impact on existing neighborhood and regional parks would be less than significant.

(b) Include recreational facilities or the construction or expansion of recreational facilities

No Impact. No additional offsite recreational facilities are proposed nor are required for project implementation. The project will have no impact on parks and recreational facilities, and no mitigation is required.

Recreation Cumulative Impacts

As identified in the analysis above, the proposed project would not result in a potentially significant impact on recreational facilities and services. In regards to project impacts that are considered to be less than significant, such impacts are not expected to result in compounded or increased impacts when considered together with similar effects from other past, present, and reasonably foreseeable probable future projects. Nearby projects would be of a size that would also most likely not impact recreational facilities. Therefore, no cumulative impacts on recreational facilities would result from proposed project implementation.

Transportation/Traffic

ENVIRONMENTAL IMPACTS Issues		Potentially Significant Issues	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
16.	**TRANSPORTATION/TRAFFIC. Would the project:**				
a)	Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?			X	
b)	Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?			X	
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?				X

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Substantially increase hazards due to a design feature (for example, sharp curves or dangerous intersections) or incompatible uses (for example, farm equipment)?		X		
e) Result in inadequate emergency access?			X	
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?			X	

(a) Conflict with applicable transportation plans or ordinances, including congestion management plans

Less Than Significant Impact.

Intersections, Streets, Highways, and Freeways

The proposed project will generate new vehicular trips that will increase traffic volumes on the nearby street network. To assess changes in traffic conditions associated with the proposed project, the following intersections in Table 13, Study Intersections were analyzed. Weekday intersection turning movement volumes for study intersections were collected from September 2013, May 2014, December 2014, June 2015, and December 2015. Volumes were collected during the AM (7:00-9:00 AM) peak period and PM (4:00-6:00 PM) peak period on a weekday when local schools were in session.

Table 13 – Study Intersections

#	Intersection
1	S Mary Avenue / El Camino Real
2	S Pastoria Avenue-Hollenbeck Avenue / El Camino Real
3	S Mathilda Avenue / El Camino Real
4	S Sunnyvale Avenue / El Camino Real
5	Cezanne Drive / El Camino Real
6	S Fair Oaks Avenue / El Camino Real
7	S Mathilda Avenue / Southwest Project Driveway
8	Sunnyvale-Saratoga Road / East Project Driveway
9	Sunnyvale-Saratoga Road / Southeast Project Driveway
10	S Mathilda Avenue - Sunnyvale-Saratoga Road / Talisman Drive – Sunnyvale-Saratoga Road

Source: Kimley-Horn, 2016

The number of proposed project trips anticipated to be generated by the proposed project is provided in detail in the Transportation Operations Analysis (Appendix E). Project trips were estimated using the trip generation factors for the grocery store land use compiled by the Institute of Transportation Engineers (ITE) in the publication Trip Generation, 9th Edition.[9] The project would demolish and replace 6,100 square feet of the existing OSH store and therefore, a trip credit was given for the portion of the store is which is being replaced. With the removal of the OSH customer pick-up area approximately 65 pallets of concrete and masonry would be removed from the store and would no longer be available for purchase. The Traffic Operations Analysis addressed the initial rough estimate of 6,780 square feet of existing home improvement superstore space to be demolished, and determined that its replacement with the proposed 11,600 square foot grocery store project would generate 978 net new daily trips, including 29 net new AM peak hour trips and 95 net new PM peak hour trips. Table 14, Project Trip Generation shows how the how the trips are divided between the AM and PM peak hours. Subsequently, the applicant determined, based upon more precise calculations, that approximately 6,100 feet of or existing store would be demolished, which is 680 square feet less than initially estimated. Because the trip generation rates for home improvement superstores are relatively low, the 680 square foot difference amounts to an addition of 21 daily, 1 AM peak and 2 PM peak hour trips of net new trips. These additional net new trips represent a de minimus difference in traffic, and do not affect the conclusion of the traffic operations analysis.

[9] ITE rates are derived from nationwide surveys taken of different types of land uses. Each land use surveyed in a category encompasses generally similar characteristics, such as grocery stores or home improvement superstores. They are not broken down according to specific attributes of any given use within those land use categories, such as which grocery store has wider aisles or which hardware store has a larger customer pick-up area. Using ITE rates is standard engineering practice and is used within the City of Sunnyvale. The ITE Trip Generation Handbook does not allocate trip generation rates according to areas within any given land use category, such as the customer aisle area within a grocery store, or the customer pick-up dock of a hardware store. There is no reliable ITE data available that would allow the city to parse the data that finely. Attempting to allocate trip generation rates to separate sections within buildings would entail speculation, and would create a false impression of a level of final detail and precision that is not supported by the data.

Table 14 – Project Trip Generation

TIME PERIOD		LAND USE	Trips		
			In	Out	Total
Daily	Existing	Home Improvement Superstore (55.104 KSF)	(847)	(847)	(1,694)
	Project	Home Improvement Superstore (48.324 KSF)	743	743	1,486
		Supermarket (11.6 KSF)	593	593	1,186
		Net New Trips	**489**	**489**	**978**
AM Peak	Existing	Home Improvement Superstore (55.104 KSF)	(47)	(35)	(82)
	Project	Home Improvement Superstore (48.324 KSF)	41	31	72
		Supermarket (11.6 KSF)	24	15	39
		Net New Trips	**18**	**11**	**29**
PM Peak	Existing	Home Improvement Superstore (55.104 KSF)	(63)	(65)	(128)
	Project	Home Improvement Superstore (48.324 KSF)	55	58	113
		Supermarket (11.6 KSF)	56	54	110
		Net New Trips	**48**	**47**	**95**

Source: Kimley-Horn 2016

Project impacts were determined by comparing conditions with the proposed project to those without the proposed project. Significant impacts for signalized intersections are created when traffic from the proposed project causes the LOS to fall below a specific threshold. For unsignalized intersections, a deficient LOS suggests recommendations for improvements to the type of traffic control, such as signalization. A peak hour signal warrant was evaluated to determine if the intersection met the volume requirements for a traffic signal.

Consistent with the significance impact criteria documented in the Transportation Impact Analysis Guidelines[10], VTA accepts a minimum level of service of LOS E for a County intersection or Congestion Management Program (CMP) intersection. The City utilizes the same VTA criterion for all intersections on regionally significant roadways such as El Camino Real, Sunnyvale-Saratoga Road, and Mathilda Avenue. Therefore, the following conditions would result in a significant impact at a CMP intersection or regionally significant roadway intersection:

1. If the intersection operates at an acceptable LOS (i.e. LOS A, B, C, D, or E) without the project and degrades to an unacceptable LOS (i.e. LOS F) with the project, then it is a significant impact.
2. If the intersection operates at an unacceptable LOS (i.e. LOS F) without the project and the project increases the average control delay for the critical movements by four (4) or more seconds and increases the critical volume to capacity (v/c) by 0.01 or more, then it is a significant impact.

[10] *Transportation Impact Analysis Guidelines*, Santa Clara Valley Transportation Authority Guidelines, October 2014.

a. If the addition of project traffic reduces the amount of average control delay for a critical movement (i.e. negative change in delay) and the project increases the v/c by 0.01 or more, then it is a significant impact.

Mitigation for intersections with a significant impact must improve the LOS back to without Project conditions or better. It should be noted that The VTA CMP guidelines dictate that a freeway segment be analyzed if the project adds the traffic equivalent of at least one percent of the freeway segment's capacity. No freeway analysis was conducted or required because the proposed project would not add sufficient traffic to any freeway segments per the VTA guidelines.

The LOS standard for City of Sunnyvale intersections is LOS D except for City of Sunnyvale intersections that are designated as regionally significant, which allows for a minimum level of service of LOS E. Therefore, the following conditions would result in a significant impact at a City intersection:

1. If the intersection operates at an acceptable LOS (i.e. LOS A, B, C, or D) without the project and degrades to an unacceptable LOS (i.e. LOS E, or F) with the project, then it is a significant impact.
2. If the intersection operates at an unacceptable LOS (i.e. LOS E, or F) without the project and the project increases the critical-movement delay of four (4) or more seconds and increased the critical volume to capacity (v/c) by 0.01 or more, then it is a significant impact.

Traffic operations were evaluated at the study intersections under existing conditions plus traffic generated by the project. Results of the analysis are presented in Table 15, Existing Plus Project Intersection Level of Service Summary. All study intersections function within acceptable standards under this analysis scenario. In addition, none of the unsignalized intersections met the peak hour signal warrant for the Existing Plus Project condition in the AM and PM peak hours.

To evaluate potential impacts from proposed project plus other recently approved, traffic volumes from approved but not yet constructed projects were incorporated according to the information provided by the City. Traffic from the approved but not yet constructed projects was added to the existing traffic. The Existing Plus Background volumes were evaluated at the study intersections Results of the analysis are presented in Table 16, Existing Plus Background Plus Project Intersection Level of Service Summary. All study intersections function within acceptable standards under this analysis scenario.

In addition, none of the unsignalized intersections met the peak hour signal warrant for the Existing Plus Background Plus Project condition in the AM and PM peak hours.

The City of Sunnyvale does not consider potential deficiencies related to queuing to be an environmental impact under CEQA because queue lengths are determined by signal operational parameters and can generally be modified with changes to signal timing. The identification of

transportation intersection impacts within the Transportation Operations Analysis (included in Appendix E) is based on the physical capacity of the transportation system. Excessive queue lengths, by themselves, are not evidence of capacity deficiencies but of the signal timing parameters that have been established. As such, no mitigation is required.

Transit System, Pedestrian and Bicycle Facilities

Transit riders can utilize the Santa Clara Valley Transportation Authority (VTA) bus routes that operate along El Camino Real, South Pastoria Avenue, South Sunnyvale Avenue, and South Fair Oaks Avenue adjacent to the project site. There are bus stops for VTA buses on either side of El Camino Real and South Fair Oaks Avenue that provide access to the local transit system.

Transit vehicles for the transit routes in the study area are expected to use the shared right-of-way with other motorists. The proposed project is anticipated to incrementally increase the vehicle delay at the study intersections, it is expected that transit vehicle delay may incrementally increase as well. However, as noted in the tables above, the increases in vehicle delay are all less than four seconds in the AM and PM peak hours. This increase in transit vehicle delay would not affect the overall schedule for the transit routes and potential impacts are considered less than significant.

There are existing sidewalks along the project site's frontage on Sunnyvale-Saratoga Road and on Mathilda Avenue. It is anticipated that pedestrians would use these sidewalks along the project site's frontages to access the adjacent land uses and the transit stops nearby. At each of the signalized intersections near the project site there are striped crosswalks for each direction, allowing pedestrians to more safely cross the adjacent roadways. Therefore, potential impacts on pedestrian facilities are considered less than significant.

Bicyclists will have direct access to the project site using bicycle lanes on S Mathilda Avenue and Sunnyvale-Saratoga Road. These bicycle lanes provide access to the project site and other bicycle facilities throughout the City. The project is not proposing any bicycle facility upgrades off-site.

The proposed project does not appear to impact the safety of bicyclists or have any hazardous design features impeding the use of bicycles. Since the proposed project does not conflict with any adopted policies or plans related to bicycle activity, the proposed project will have a less than significant impact on bicycle facilities.

(b) Conflict with applicable congestion management plan

Less Than Significant Impact. The Santa Clara County Valley Transportation Authority (VTA) is the applicable congestion management agency responsible for establishing LOS standards for CMP-designated roads and highways. The City utilizes the same VTA LOS standards for all intersections on regionally significant roadways such as El Camino Real, Sunnyvale-Saratoga Road, and Mathilda Avenue. The traffic generated by the proposed project, 978 net new daily trips, including 29 net new AM peak hour trips and 95 net new PM peak hour trips. As shown in Tables 15 and 16 no conflict with an applicable VTA LOS standards would occur as a result of

the proposed project. As a result, impacts are considered less than significant. No mitigation is required.

(c) Alter air traffic patterns

No Impact. The proposed project does not include any aviation components or structures where height would be an aviation concern. Additionally, no substantial new air traffic would be generated at the local airports in Santa Clara County as a result of the proposed project. The proposed project would not result in any impacts on air traffic pattern or an increase in traffic levels or a change in location that would result in a safety risk because the project is a grocery retail development that is not located near an airport and the development of the project would not affect airport operations at an airport.

(d) Design feature hazards

Less Than Significant Impact. The project does not include any roadway improvements or new driveways. Entry into the proposed buildings would utilize existing driveways on South Mathilda Avenue and Sunnyvale-Saratoga Road. All driveways are existing unsignalized intersections. The South Mathilda Avenue driveway is restricted to right-in and right-out operations. The Sunnyvale-Saratoga Road driveways allow full access to the site. There are no proposed changes to these existing driveways with the proposed Project. The project driveways were determined to operate at an acceptable LOS with minimal queuing with the addition of the proposed project.

(e) Adequate emergency access

Less Than Significant Impact. The internal circulation of the site has been reviewed by the City Public Safety Department to ensure the project has been designed to accommodate the City's emergency vehicles with adequate access and turning radii. Therefore, emergency access impacts are considered less than significant and no mitigation is required.

(f) Conflict with other transit policies

Less Than Significant Impact. The proposed project does not conflict with any adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. The project does not require roadway or intersection improvements that would conflict with adopted plans for implementing public transit, bicycle, or pedestrian facilities. Potential impacts are considered less than significant and no mitigation is required.

Table 15 – Existing Plus Project Intersection Level of Service Summary

	Intersection	LOS Criteria	Jurisdiction	Control	Existing						Existing Plus Project									
					AM Peak			PM Peak			AM Peak					PM Peak				
					LOS	Delay (sec)[1]	v/c Ratio	LOS	Delay (sec)[1]	v/c Ratio	LOS	Delay (sec)[1]	v/c Ratio	v/c Var.	Crit. Delay Var.	LOS	Delay (sec)[1]	v/c Ratio	v/c Var.	Crit. Delay Var.
1	S Mary Avenue / El Camino Real[2]	E	City / Caltrans	Signal	D+	36.0	0.649	D	39.5	0.758	D+	36.0	0.651	0.002	0.1	D	39.7	0.764	0.006	0.3
2	S Pastoria Avenue / El Camino Real[2]	E	City / Caltrans	Signal	C	30.2	0.512	C	30.3	0.577	C	30.2	0.513	0.001	0.0	C	30.2	0.582	0.005	-0.1
3	S Mathilda Avenue / El Camino Real[2,3,4]	E	City / Caltrans	Signal	D+	38.8	0.773	D	47.1	0.774	D+	38.8	0.774	0.001	0.0	D	47.3	0.779	0.005	0.3
4	S Sunnyvale Avenue / El Camino Real[2]	E	City / Caltrans	Signal	C	31.0	0.407	C	31.4	0.593	C	31.2	0.411	0.004	0.3	C-	32.3	0.616	0.023	1.3
5	Cezanne Drive / El Camino Real[2]	E	City / Caltrans	Signal	B-	18.9	0.360	B-	19.7	0.459	B-	18.9	0.360	0.000	0.0	B-	19.6	0.460	0.001	0.0
6	S Fair Oaks Avenue / El Camino Real[2,3]	E	City / Caltrans	Signal	D	39.1	0.531	D	39.1	0.755	D	39.1	0.531	0.000	0.0	D	39.2	0.756	0.001	0.0
7	S Mathilda Avenue / Southwest Project Driveway[4]	D	City	SSSC	B	14.4	0.042	A	9.6	0.030	B	14.4	0.045	0.003	0.0	A	9.6	0.032	0.002	0.0
8	Sunnyvale-Saratoga Road / East Project Driveway[5]	E	City	SSSC	B	11.3	0.017	B	14.6	0.060	B	11.7	0.030	0.013	0.2	C	16.3	0.139	0.079	0.5
9	Sunnyvale-Saratoga Road / Southeast Project Driveway[5]	E	City	SSSC	A	9.5	0.013	B	10.9	0.035	A	9.8	0.014	0.001	0.1	B	12.2	0.042	0.007	0.3
10	S Mathilda Avenue - Sunnyvale-Saratoga Road / Talisman Drive - Sunnyvale-Saratoga Road[4,5]	E	City	Signal	B-	18.4	0.514	C	25.1	0.515	B-	18.5	0.517	0.003	0.1	C	25.3	0.518	0.003	0.2

1 The average control delay is reported for signalized intersections. The delay for the worst movement is reported for SSSC intersections.
2 El Camino Real is a regionally significant roadway with LOS E threshold.
3 S Mathilda Avenue / El Camino Real (#2), S Fair Oaks / El Camino Real (#5) are CMP intersections with LOS E threshold.
4 Mathilda Avenue is a regionally significant roadway with LOS E threshold between Carribean Drive and El Camino Real.
5 Sunnyvale-Saratoga Road is a regionally significant roadway with LOS E threshold between El Camino Real and I-280.

Source Kimley-Horn, 2016

Table 16 – Existing Plus Background Plus Proposed Project Intersection Level of Service Summary

	Intersection	LOS Criteria	Jurisdiction	Control	Existing Plus Background						Existing Plus Background Plus Project									
					AM Peak			PM Peak			AM Peak					PM Peak				
					LOS	Delay (sec)1	v/c Ratio	LOS	Delay (sec)1	v/c Ratio	LOS	Delay (sec)[1]	v/c Ratio	v/c Var.	Crit. Delay Var.	LOS	Delay (sec)[1]	v/c Ratio	v/c Var.	Crit. Delay Var.
1	S Mary Avenue / El Camino Real[2]	E	City / Caltrans	Signal	D+	37.3	0.707	D	40.4	0.785	D+	37.3	0.709	0.002	0.0	D	40.6	0.790	0.005	0.3
2	S Pastoria Avenue / El Camino Real[2]	E	City / Caltrans	Signal	C	30.0	0.550	C	29.8	0.595	C	30.0	0.550	0.000	0.0	C	29.7	0.599	0.004	-0.1
3	S Mathilda Avenue / El Camino Real[2,3,4]	E	City / Caltrans	Signal	D	40.3	0.812	D	47.8	0.787	D	40.3	0.813	0.001	0.1	D	48.0	0.793	0.006	0.3
4	S Sunnyvale Avenue / El Camino Real[2]	E	City / Caltrans	Signal	C	31.0	0.427	C	31.5	0.606	C	31.3	0.431	0.004	0.3	C-	32.4	0.629	0.023	1.4
5	Cezanne Drive / El Camino Real[2]	E	City / Caltrans	Signal	B-	18.3	0.372	B-	19.4	0.468	B-	18.2	0.373	0.001	0.0	B-	19.4	0.470	0.002	-0.1
6	S Fair Oaks Avenue / El Camino Real[2,3]	E	City / Caltrans	Signal	D	40.4	0.573	D	39.6	0.764	D	40.4	0.574	0.001	-0.1	D	39.7	0.765	0.001	0.0
7	S Mathilda Avenue / Southwest Project Driveway[4]	D	City	SSSC	B	14.5	0.043	A	9.6	0.030	B	14.6	0.046	0.003	0.0	A	9.7	0.033	0.003	0.0
8	Sunnyvale-Saratoga Road / East Project Driveway[5]	E	City	SSSC	B	11.5	0.018	B	14.8	0.061	B	11.8	0.030	0.012	0.2	C	16.6	0.142	0.081	0.5
9	Sunnyvale-Saratoga Road / Southeast Project Driveway[5]	E	City	SSSC	A	9.5	0.013	B	10.9	0.036	A	9.9	0.015	0.002	0.0	B	12.3	0.043	0.007	0.3
10	S Mathilda Avenue - Sunnyvale-Saratoga Road / Talisman Drive - Sunnyvale-Saratoga Road[4,5]	E	City	Signal	B-	18.8	0.524	C	25.3	0.525	B-	18.9	0.527	0.003	0.1	C	25.5	0.529	0.004	0.2

1 The average control delay is reported for signalized intersections. The delay for the worst movement is reported for SSSC intersections.
2 El Camino Real is a regionally significant roadway with LOS E threshold.
3 S Mathilda Avenue / El Camino Real (#2), S Fair Oaks / El Camino Real (#5) are CMP intersections with LOS E threshold.
4 Mathilda Avenue is a regionally significant roadway with LOS E threshold between Carribean Drive and El Camino Real.
5 Sunnyvale-Saratoga Road is a regionally significant roadway with LOS E threshold between El Camino Real and I-280.

Source Kimley-Horn, 2016

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Cumulative Transportation and Traffic Impacts

The low volume of traffic generated by the proposed project would not result in any significant direct impacts on any intersections or roadway segments. The project is consistent with the land use designation and development density established by the existing zoning, community plan, and General Plan policies for the 2009 General Plan Update. The 2009 General Plan and the City's traffic impact fee program already account for the cumulative traffic impacts of development under the General Plan, and project-specific review will allow any localized impacts to be addressed by ensuring that each development project contributes its fair share to correcting any such problems. Therefore, cumulative impacts are considered less than cumulatively considerable.

Utilities and Service Systems

ENVIRONMENTAL IMPACTS Issues		Potentially Significant Issues	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
17.	**UTILITIES AND SERVICE SYSTEMS. Would the project:**				
a)	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			X	
b)	Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction or which could cause significant environmental effects?			X	
c)	Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X	
d)	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?			X	
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-projected demand in addition to the provider's existing commitments?			X	
f)	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			X	

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
g) Comply with federal, state, and local statutes and regulations related to solid waste?				X

(a) Wastewater treatment requirements

Less Than Significant Impact. The Donald M. Somers Water Pollution Control Plant (WPCP) provides wastewater treatment for the City of Sunnyvale. The treatment plant is located at the northern terminus of Borregas Avenue, approximately 4.5 miles north of the site.

The WPCP is designed to treat an average of 29.5 million gallons of wastewater per day (MGD). In 2015, the plant treats an average dry weather effluent flow of approximately 14.5 MGD, well within the plant capacity. Based on growth projections, the City does not anticipate that flows would exceed the capacity of the overall collection system; however, specific locations within the collection system may require additional capacity in the future. Additionally, components of the system, such as piping, manholes, pumps, etc., would also require replacement as they exhaust their life expectancy.

The City is currently undergoing a master planning effort to rebuild the Water Pollution Control Plant over the next 20 years through the development of a Water Pollution Control Plant Master Plan. The plan is to upgrade existing outdated equipment and to address the Plant's current and future challenges. A Program Environmental Report is currently in process for the Water Pollution Control Plant Master Plan. A Final EIR is expected by the second or third quarter of 2016.

The proposed project will not significantly impact capacity or operations at the treatment plant. The project is consistent with the existing land use designations and proposed densities of the project site. The project would not result in the need for additional capacity at the wastewater treatment plant or additional wastewater infrastructure to be built offsite. Therefore, potential impacts due to increased wastewater flows and demand for sanitary sewer conveyance and treatment facilities generated by the proposed project would be less than significant.

(b) Wastewater treatment facilities

Less Than Significant Impact. Please see Response XVII (a) above and Response IVII(d) below. The WPCP has adequate capacity to accommodate the needs of the proposed project. Therefore, water or wastewater impacts related to implementation of the proposed project would be less than significant.

(c) Stormwater drainage facilities

Less Than Significant Impact. The construction of new stormwater drainage facilities or expansion of existing facilities would not be required for the proposed project, because the project would not increase the amount of surface water runoff leaving the site. Therefore, the construction of new stormwater drainage facilities would not cause a significant impact as no such construction is required; impacts would be considered less than significant and no mitigation is required.

(d) Water supply

Less Than Significant Impact. The City of Sunnyvale has been identified as the water purveyor for the proposed project. The City owns and operates both potable and non-potable water distribution systems for domestic water service residential and non-residential consumption, and recycled water for large landscape irrigation. The potable system serves drinking water to its residents living in an area of approximately 24 square miles. Service area elevation ranges from sea level at the north end to approximately 300 above mean sea level at the southwest end of the City. The potable system maintains service pressures by hydraulically separating the system into three distinct pressure zones – Zone I, II and III. The City's potable water system consists of over 340 miles of distribution pipeline ranging in size from 4-inch to 36-inch in diameter. The existing water distribution system provides water throughout the project area.

Recycled water in the project area is tertiary treated wastewater diverted from discharge and treated for reuse in industrial processes, landscape irrigation, and other non-potable uses. It is used by businesses and the City of Sunnyvale for landscape and golf course irrigation, and decorative ponds.

The City's 2010 Urban Water Supply Management Plan projects that supplies will be sufficient for demand from planned growth during normal, single dry and multiple dry years, through increased groundwater pumping and implementation of drought conservation programs, without the need for rationing. The water distribution for the proposed project will be consistent with the system dictated by the City's general plan. The project would not be a water intensive use and it would plant water efficient landscaping. No additional expansion of existing facilities will be necessary as a result of the project. As such, the proposed project would create no significant impact on water facilities and service.

(e) Wastewater treatment capacity

Less Than Significant Impact. As explained in response XVII (a), the WPCP would provide wastewater services to the proposed project and has adequate facilities to accommodate development of the project site. Thus, no additional impacts would result from the proposed project and impacts would be considered less than significant.

(f) Adequate landfill capacity

Less Than Significant Impact. Sunnyvale provides a broad range of solid waste management services to its residents and businesses by way of a municipal solid waste utility. The three

major service components are the collection of solid waste and recyclables, Sunnyvale Materials Recovery and Transfer Station (SMaRT Station®) operation, and disposal. Currently, the City of Sunnyvale disposes solid waste at the Kirby Canyon Landfill, located at 901 Coyote Creek Golf Drive in San Jose. The disposal site is operated by Waste Management of Northern California. At the SMaRT Station, a materials recovery facility sorts recyclable materials from refuse delivered from the cities of Sunnyvale, Mountain View and Palo. Other parts of the facility receive and prepare for marketing source separated recyclables and compostable materials delivered by the cities. Residues from these processes are consolidated in large transfer trailers for delivery to the landfill. The City has landfill capacity under contract through 2021, with an option to extend the disposal agreement for up to 10 years (to 2031) if the landfill operator agrees and is able to extend its land lease.

Solid waste is collected by a private company, Bay Counties Waste Services, under a contract with the City of Sunnyvale. The contract is exclusive, meaning that no other company is allowed to collect solid waste. The exclusive agreement also gives the City the ability to enforce community standards for service quality, collection hours, truck and container colors, maintenance and cleanliness, graffiti removal, use of clean air fuels, etc. The SMaRT Station is also currently operated under a separate contract by Bay Counties Waste Services.

The City has a Zero Waste Policy in place (Zero Waste Policy 3.2.4) that directs staff to reduce the amount of waste being disposed. In addition, Council has approved a Zero Waste Strategic Plan that requires 70-90% diversion of material from the landfill. In order to comply, the construction phase would need to include a comprehensive materials management plan in accordance with the City's Green Building requirements as well as adequate planning and space for both recycling and garbage containers. The post-occupancy phase of the project would need to include comprehensive recycling and waste reduction activities, including source separated recycling and food and yard trimmings collection for composting.

The addition of the proposed project would not significantly change the amount of solid waste generated within the City because the development would not significantly change the number of people working and living within the City and not significantly alter the amount of waste generated within the City. As the project is consistent with the existing General Plan, potential impacts are considered less than significant

(g) Solid waste regulation compliance

No Impact. The proposed project will comply with AB 939 (California Integrated Waste Management Act of 1989) mandating a 50% diversion rate, as well as AB 341 (Mandatory Commercial Recycling), which dictates the requirements for the statewide commercial recycling program. The project does not propose any land use that would interfere with waste management plans and would be consistent with the regulations and statutes set forth by the general plan. There would be no impact in regards to compliance with solid waste regulations.

Mandatory Findings of Significance

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
18. MANDATORY FINDINGS OF SIGNIFICANCE. Does the project:				
a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?				X
b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of the past projects, the effects of other current projects, and the effects of probable future projects.)			X	
c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			X	

(a) Degrade quality of the environment

No Impact. The potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory were considered in the response to each question in the respective sections (Sections IV and V) of this checklist. In addition to project specific impacts, this evaluation considered the project's potential for significant cumulative effects. There is no substantial evidence that there are biological or cultural resources that are affected or associated with this project. Therefore, this project has been determined not to meet this Mandatory Finding of Significance.

(b) Cumulatively considerable impacts that are individually limited

Less Than Significant Impact. Per the criteria for evaluating environmental impacts in this Initial Study, the potential for adverse cumulative effects were considered in the response to each

question in sections I through XVIII of this checklist. In addition to project specific impacts, this evaluation considered the project's potential for incremental effects that are cumulatively considerable. As a result of this initial study, no cumulative effects associated with the proposed project have been identified. Therefore, this project has been determined not to meet this Mandatory Finding of Significance.

(c) Effects on humans of environmental impacts

Less Than Significant Impact. The project proposes to develop a new grocery store on an existing commercial site consistent with the existing zoning for the property and would not involve any physical improvements or changes in the environment that would adversely affect human beings. Mitigation measures have been identified that would address potential impacts on human beings, specifically measures for air quality, seismic hazards, and noise to reduce health hazards to humans. Therefore, this project has been determined not to meet this Mandatory Finding of Significance.

SOURCE REFERENCES

The following is a list of references used in the preparation of this document. Unless attached herein, copies of all reference reports, memorandums and letters are on file with the City of Sunnyvale Department of Community Development.

City of Sunnyvale. 2011. Sunnyvale Municipal Code. Current through Ordinance 2982-12 and the December 2012 code supplement. Available online at http://qcode.us/codes/sunnyvale/.

City of Sunnyvale 2011a. City of Sunnyvale General Plan. Consolidated in July.

City of Sunnyvale. 2011d. City of Sunnyvale 2010 Urban Water Management Plan. June.

City of Sunnyvale 2014. Climate Action Plan. December.

Kimley-Horn and Associates, 2016. Transportation Operations Analysis, Oppidan Grocery Store (777 Sunnyvale-Saratoga Road). July.

Michael Baker International, 2015. Health Risk Assessment for the Oppidan Online Ordering Grocery Store Project. November.

Moore Twining Associates, Inc., 2015. Phase I Environmental Site Assessment, Green Grocery, LLC, 777 Sunnyvale Saratoga Road. June.

Moore Twining Associates, Inc., 2016. Phase I Follow-Up – Business Risks. May.

Rincon, 2016. Air Quality Study and Greenhouse Gas Study, Oppidan Online Ordering Grocery Store Project. June.

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Appendix A

Air Quality Study and Greenhouse Gas Study

July 2016

Kimley»Horn

Oppidan Investment Company

Oppidan Online Ordering Grocery Store Project

Sunnyvale, CA

Air Quality and Greenhouse Gas Study

June 2016

rincon

Environmental Scientists Planners Engineers

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June 9, 2016
Project No. 15-01896

Roger Bernstein
Oppidan Investment Company
5125 County Road 101
Minnetonka, MN 55345
Via email: roger@Oppidan.com

RE: Air Quality and Greenhouse Gas Study for an Online Ordering Grocery Store Project in Sunnyvale, California

Dear Mr. Bernstein:

Rincon Consultants, Inc. is pleased to submit the attached Air Quality and Greenhouse Gas (GHG) Study for the proposed Online Ordering Grocery Store project in Sunnyvale, California. The proposed project includes operational controls that would prevent significant localized air quality impacts, including scheduling to limit vehicle queueing and discouraging vehicle idling on site. Emissions of reactive organic compounds (ROG) and fugitive dust (PM_{10} and $PM_{2.5}$) that result from the construction of the proposed project would not exceed the BAAQMD regional construction thresholds. However, maximum daily emissions of nitrous oxides (NO_X) associated with construction-related mobile emissions would exceed the applicable BAAQMD threshold. Compliance with applicable BAAQMD requirements and BMPs as well as the proposed operational controls described in Mitigation Measures AIR-1 and AIR-2 in the report would ensure that the project would not result in any significant short-term construction impacts.

The project would not result in any significant long-term operational impacts to air quality or climate change. The project would not result in exposure of any nearby receptors to significant localized pollutant concentrations or odors, and would not conflict with the BAAQMD's 2010 Clean Air Plan.

This analysis looks at demolition of 7,600 square feet of building space, which represents a preliminary estimate of the maximum amount of demolition. Current plans propose to demolish slightly less than 6,100 square feet. A reduction in the square footage of building demolition from 7,600 to approximately 6,100 square feet would not make any material difference in the results, conclusions, or recommendations in our analysis.

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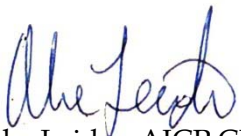
If you have any questions regarding this study or if we can provide you with other environmental consulting services, please feel free to contact us.

Sincerely,

RINCON CONSULTANTS, INC.

Chris Bersbach, MESM
Technical Services Program Manager



Abe Leider, AICP CEP
Senior Project Manager

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Appendix

CalEEMod version 2013.2.2 - Summer, Winter, and Annual Results

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AIR QUALITY AND GREENHOUSE GAS ANALYSIS

1.0 INTRODUCTION

This report is an air quality and greenhouse gas (GHG) analysis of the Online Ordering Grocery Store Project in the City of Sunnyvale. The report has been prepared by Rincon Consultants, Inc. under contract to Oppidan Investment Company. The purpose of this analysis is to provide an evaluation of the potential air quality and GHG emissions and impacts on the air basin and on nearby sensitive receptors.

This analysis applies BAAQMD's thresholds of significance to evaluate both air quality and greenhouse gas impacts. On March 5, 2012 the Alameda County Superior Court issued a judgment finding that the BAAQMD had failed to comply with CEQA when it adopted the thresholds contained in the BAAQMD's 2010 Updated CEQA Guidelines. In August 2013, the First District Court of Appeal overturned the trial court and held that the thresholds of significance adopted by the BAAQMD were not subject to CEQA review. The California Supreme Court granted review of the Court of Appeal decision limited to the question whether CEQA encompasses impacts of the environment on the project. On December 17, 2015, the court issued its opinion, concluding that that, subject to certain enumerated statutory exceptions, agencies subject to CEQA are not required to analyze the impact of existing environmental conditions on a project's future users or residents. The result of this litigation is that BAAQMD's thresholds have been upheld, with the exception of thresholds that seek to evaluate the impact of the environment on the project (unless one of the enumerated exceptions applies). The thresholds have never been ruled inadequate or lacking in evidentiary support.

The authors of this report agree with the City's statement, as noted in the previously published MND, that the BAAQMD thresholds are adequately supported by the Options and Justification Report (dated October 2009) prepared by the BAAQMD. The BAAQMD Options and Justification Report establishes thresholds based on extensive analysis and substantial evidence, and it represents the best available science on the subject of what constitutes significant air quality and/or GHG effects for this project. Therefore, this report uses the BAAQMD's thresholds to analyze Air Quality and GHG impacts.

2.0 PROJECT DESCRIPTION

The project site is located at 777 Sunnyvale-Saratoga Road, approximately 500 feet north of the S. Mathilda Avenue and Sunnyvale-Saratoga Road intersection in the City of Sunnyvale, California. The site comprises one parcel with an existing lumber pick-up building and parking area. The property is directly north of the Fall River Terrace residential development, directly east of S. Mathilda Avenue, and directly south of the West Sunnyvale Shopping Center and Cherry Orchard Apartments. The site is designated and zoned Highway/Central Business under the City of Sunnyvale General Plan and Zoning Code.

The project involves demolition of approximately 7,600 square feet of building space currently used for lumber storage and customer pick-up, and construction of an approximately 11,600 square foot building and a new carport on the 1.6-acre development area within the 5.22-acre project site that would be operated as a pickup location for an online grocery store with nine parking stalls

designated for customers waiting for their orders to be brought to their vehicle. The pick-up grocery store would operate by having customers place their order in advance; choose a pick-up time; drive to the facility; and park in the pick-up area to have their order brought out to their vehicle. On-site staff and signage would direct customers to turn off vehicle engines during wait time (which is estimated to be between five and ten minutes). Queueing would be avoided by scheduling customer appointments and assigning specific time slots for pick-up. To control idling, signs would be posted instructing customers to turn off their vehicles while waiting for receipt of merchandise. To further ensure compliance with this policy, store employees would verbally inform customers of this requirement. The grocery store would be open from 7:00 AM to 10:00 PM daily, and the project applicant estimates serving 40 cars per hour during peak hours (expected to be 3:00 PM to 7:00 PM on weekdays).

Access to the project site would continue to be provided at driveways along S. Mathilda Avenue and Sunnyvale-Saratoga Road.

The site is generally level. However, it is anticipated that 2,400 cubic yards (CY) of fill will be imported and 1,200 CY of cut will be exported as part of project construction.

3.0 AIR QUALITY

This section analyzes the project's temporary and long-term impacts to local and regional air quality. Both temporary impacts related to construction and long-term impacts associated with operation of the project are discussed.

3.1 Setting

a. Criteria Air Pollutant Regulation. The federal and state governments have been empowered by the federal and state Clean Air Acts to regulate emissions of airborne pollutants and have established ambient (outdoor) air quality standards for the protection of public health. The U.S. Environmental Protection Agency (U.S. EPA) is the federal agency designated to administer air quality regulation, while the California Air Resources Board (ARB) is the state equivalent in California. Federal and state standards have been established for six criteria pollutants, including ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulates less than 10 and 2.5 microns in diameter (PM_{10} and $PM_{2.5}$), and lead (Pb). California has also set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. Table 1 lists the current federal and state standards for each of these pollutants. California standards are more restrictive than federal standards for each of these pollutants except lead and the eight-hour average for CO.

Table 1
Current Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	Federal Primary Standards	California Standard
Ozone (O_3)	1-Hour	---	0.09 ppm
	8-Hour	0.070 µg/m^3	0.070 µg/m^3
PM_{10}	24-Hour	150 µg/m^3	50 µg/m^3
	Annual	---	20 µg/m^3
$PM_{2.5}$	24-Hour	35 µg/m^3	---
	Annual	12 µg/m^3	12 µg/m^3
Carbon Monoxide (CO)	8-Hour	9.0 ppm	9.0 ppm
	1-Hour	35.0 ppm	20.0 ppm
Nitrogen Dioxide (NO_2)	Annual	0.053 ppm	0.030 ppm
	1-Hour	0.100 ppm	0.18 ppm
Sulfur Dioxide (SO_2)	24-Hour	0.14 ppm	0.04 ppm
	3-Hour	0.5 ppm (secondary)	---
	1-Hour	0.075 ppm (primary)	0.25 ppm
Lead (Pb)	30-Day Average	---	1.5 µg/m^3
	3-Month Average	0.15 µg/m^3	---

ppm = parts per million
µg/m^3 = micrograms per cubic meter
Source: California Air Resources Board, http://www.arb.ca.gov/research/aaqs/aaqs2.pdf, last updated October 1, 2015.

Local control in air quality management is provided by ARB through county-level or regional (multi-county) air pollution control districts (APCDs). ARB establishes statewide air quality standards and is responsible for control of mobile emission sources, while the local APCDs are responsible for enforcing standards and regulating stationary sources. ARB has established 15 air basins statewide. The City of Sunnyvale is located within the San Francisco Bay Area Air Basin (SFBAAB), which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). BAAQMD is required to monitor air pollutant levels to ensure that air quality standards are met and, if they are not met, to develop strategies to meet the standards. Depending on whether the standards are met or exceeded, the local air basin is classified as being in "attainment" or "non-attainment."

The SFBAAB is designated in non-attainment for the federal 8-hour ozone standard and the federal $PM_{2.5}$ standard. The San Francisco Bay Area is also a maintenance area for the federal carbon monoxide (CO) standards and is designated in attainment or unclassified for the other federal ambient air quality standards. SFBAAB is also designated in non-attainment for the state standards for ozone, PM_{10}, and $PM_{2.5}$, and in attainment or unclassified for the other state ambient air quality standards. Characteristics of ozone, carbon monoxide, nitrogen dioxide, and suspended particulates are described below.

Ozone. Ozone is produced by a photochemical reaction (triggered by sunlight) between nitrogen oxides (NO_X) and reactive organic gases (ROG). Nitrogen oxides are formed during the combustion of fuels, while reactive organic compounds are formed during combustion and

evaporation of organic solvents. Because ozone requires sunlight to form, it mostly occurs in concentrations considered serious between the months of April and October. Ozone is a pungent, colorless, toxic gas with direct health effects on humans including respiratory and eye irritation and possible changes in lung functions. Groups most sensitive to ozone include children, the elderly, people with respiratory disorders, and people who exercise strenuously outdoors.

Carbon Monoxide. CO is a local pollutant that is found in high concentrations only near the source. The major source of carbon monoxide, a colorless, odorless, poisonous gas, is automobile traffic. Elevated concentrations, therefore, are usually only found near areas of high traffic volumes. CO's health effects are related to its affinity for hemoglobin in the blood. At high concentrations, carbon monoxide reduces the amount of oxygen in the blood, causing heart difficulties in people with chronic diseases, reduced lung capacity and impaired mental abilities.

Nitrogen Dioxide. NO_2 is a by-product of fuel combustion, with the primary source being motor vehicles and industrial boilers and furnaces. The principal form of nitrogen oxide produced by combustion is nitric oxide (NO), but NO reacts rapidly to form NO_2, creating the mixture of NO and NO_2 commonly called NO_X. NO_2 is an acute irritant. A relationship between NO_2 and chronic pulmonary fibrosis may exist, and an increase in bronchitis in young children at concentrations below 0.3 parts per million (ppm) may occur. NO_2absorbs blue light and causes a reddish brown cast to the atmosphere and reduced visibility. It can also contribute to the formation of PM_{10} and acid rain.

Particulate Matter. PM_{10} is particulate matter measuring no more than 10 microns in diameter, while $PM_{2.5}$ is fine particulate matter measuring no more than 2.5 microns in diameter. Suspended particulates are mostly dust particles, nitrates and sulfates. Both PM_{10} and $PM_{2.5}$ are by-products of fuel combustion and wind erosion of soil and unpaved roads, and are directly emitted into the atmosphere through these processes. Suspended particulates are also created in the atmosphere through chemical reactions. The characteristics, sources, and potential health effects associated with PM_{10} and $PM_{2.5}$ can be very different. The small particulates generally come from windblown dust and dust kicked up from mobile sources. The fine particulates are generally associated with combustion processes as well as being formed in the atmosphere as a secondary pollutant through chemical reactions. Fine particulate matter is more likely to penetrate deeply into the lungs and poses a health threat to all groups, but particularly to the elderly, children, and those with respiratory problems. More than half of the small and fine particulate matter that is inhaled into the lungs remains there. These materials can damage health by interfering with the body's mechanisms for clearing the respiratory tract or by acting as carriers of an absorbed toxic substance.

Sulfur Dioxide. Sulfur dioxide (SO_2) is one of a group of highly reactive gasses known as "oxides of sulfur (SO_X)." SO_2 is a colorless, irritating gas with a pungent smell. The largest sources of SO_2 emissions are from fossil fuel combustion at power plants (73%) and other industrial facilities (20%). Smaller sources of SO_2 emissions include industrial processes such as extracting metal from ore, and the burning of high sulfur containing fuels by locomotives, large ships, and non-road equipment.

Lead. Lead is a metal found naturally in the environment as well as in manufactured products. The major sources of lead emissions have historically been motor vehicles (such as cars and trucks) and industrial sources. As a result of the U.S. EPA's regulatory efforts to remove lead from gasoline, emissions of lead from the transportation sector dramatically declined by 95% between 1980 and 1999, and levels of lead in the air decreased by 94% between 1980 and 1999. Today, the highest levels of lead in air are usually found near lead smelters. Other stationary sources are waste incinerators, utilities, and lead-acid battery manufacturers.

b. Current Air Quality. California's weather is heavily influenced by a semi-permanent high-pressure system west of the Pacific. The City of Sunnyvale is located within the SFBAAB. Air quality in the SFBAAB is affected by the emission sources located in the region, as well as by natural factors. Atmospheric conditions such as wind speed and direction, air temperature gradients, and local and regional topography influence air quality. The SFBAAB is affected by a Mediterranean climate of warm, dry summers and cool, damp winters. During the summer, maximum temperatures are about 64°F along the coast, and about 88°F farther inland. In winter, average minimum temperatures are in the low to mid-40s along the coast and in the low to mid-30s inland (Life Science!, Inc., 2004).

Topographical features, the location of the Pacific high-pressure system, and varying circulation patterns resulting from temperature gradients affect the speed and direction of local winds. The winds play a major role in the dispersion of pollutants. Strong winds can carry pollutants far from their source; a lack of wind will allow pollutants to concentrate in an area (Life Science!, Inc., 2004).

Air dispersion also affects pollutant concentrations. As altitude increases, air temperature normally decreases. Inversions occur when colder air becomes trapped below warmer air, restricting the air masses' ability to mix. Pollutants also become trapped, which promotes the production of secondary pollutants. Subsidence inversions, which can occur during the summer in the SFBAAB, result from high-pressure cells that cause the local air mass to sink, compress, and become warmer than the air closer to the earth. Pollutants accumulate as this stagnating air mass remains in place for one or more days (Life Science!, Inc., 2004).

BAAQMD is the public agency responsible for air quality management in the nine Bay Area counties: Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, southwestern Solano, and southern Sonoma. The Air District operates air monitoring stations in each of these nine counties. The Air District began measuring air quality in the San Francisco Bay Area in 1957. In 2014 there were 32 air monitoring stations in operation within the Air District (BAAQMD, 2015).

The purpose of the monitoring stations is to measure ambient concentrations of the pollutants and determine whether the ambient air quality meets the California and federal standards. The air quality monitoring station located nearest to the project site is the Cupertino – Voss Avenue station in Cupertino, located approximately 3.9 miles southwest of the project site. The second-closest station is the San Jose – Jackson Street monitoring station, located approximately 7.7 miles east of the project site. Table 2 lists the number of days that each of the standards has been exceeded at the closest monitoring station. Data presented are from the Cupertino – Voss Avenue monitoring station.

Table 2
Ambient Air Quality Data

Pollutant	2012	2013	2014	2015
Ozone, ppm - Worst Hour	0.083	0.091	*	*
Number of days of State exceedances (>0.09 ppm)	0	0	*	*
Number of days of Federal exceedances (>0.12 ppm)	0	0	*	*
Carbon Monoxide, ppm - Worst 8 Hours	0.73	*	*	*
Number of days of State/Federal exceedances (>9.0 ppm)	0	0	0	0
Nitrogen Dioxide, ppm - Worst Hour	44.7	41.9	*	*
Number of days of State exceedances (>0.25 ppm)	0	0	0	0
Particulate Matter <10 microns, $\mu g/m^3$ Worst 24 Hours	39.1	31.0	*	*
Number of samples of State exceedances (>50 $\mu g/m^3$)	0	0	0	0
Number of samples of Federal exceedances (>150 $\mu g/m^3$)	0	0	0	0
Particulate Matter <2.5 microns, $\mu g/m^3$ Worst 24 Hours	27.5	38.9	*	*
Number of samples of Federal exceedances (>35 $\mu g/m^3$)	*	*	0	0

Source: California Air Resources Board, 2012-2015 Annual Air Quality Data Summaries available at http://www.arb.ca.gov/adam/topfour/topfour1.php
Cupertino – Voss Avenue Monitoring Station
**insufficient data available to determine the value*

As shown in Table 2, there were no exceedances of state or federal standards for any of the monitored air pollutants in 2012, 2013, 2014, or 2015.

The project site is located outside of the BAAQMD's 2013 Cumulative Impact Area, as identified on the Community Air Risk Evaluation (CARE) Program Impacted Communities Map (BAAQMD, 2015). The CARE program identifies areas with high concentrations of air pollution and populations most vulnerable to air pollution's health impacts.

c. Clean Air Plan. Under State law, BAAQMD is required to prepare an overall plan for air quality improvement for the SFBAAB, known as the Clean Air Plan. BAAQMD has adopted a Clean Air Plan (CAP) that provides a strategy for the attainment of state and federal air quality standards. To comply with the California Clean Air Act, BAAQMD and its cooperating partners adopted the 2005 Ozone Strategy. BAAQMD has made updates to the 2005 Ozone Strategy and included those updates in the 2010 Clean Air Plan. The 2010 CAP defines a control strategy that the Air District and its partners will implement to: (1) reduce emissions and decrease ambient concentrations of harmful pollutants; (2) safeguard public health by reducing exposure to air pollutants that pose the greatest health risk, with an emphasis on protecting the communities most heavily impacted by air pollution; and (3) reduce GHG emissions to protect the climate.

d. Sensitive Receptors. Ambient air quality standards have been established to represent the levels of air quality considered sufficient, with an adequate margin of safety, to protect public health and welfare. They are designed to protect that segment of the public most susceptible to respiratory distress, such as children under 14; the elderly over 65; persons engaged in strenuous work or exercise; and people with cardiovascular and chronic respiratory diseases. The majority of sensitive receptor locations are therefore residences (including short-term residences, such as hotels), schools, and hospitals. The nearest potential sensitive receptors include the Cherry Orchard Apartments located immediately north and the Fall River Terrace residences located immediately south of the project site. Additionally, Cumberland Elementary School is located approximately 0.5 miles west and Valley Health Center hospital is located approximately 0.6 miles east of the project site.

e. Odors. According to ARB's *Air Quality and Land Use Handbook* (April 2005), the most common sources of odor complaints include the follow uses:

- Sewage Treatment Plants
- Landfills Recycling Facilities
- Waste Transfer Stations
- Petroleum Refineries
- Biomass Operations
- Auto body Shops
- Coating Operations
- Fiberglass Manufacturing
- Foundries
- Rendering Plants
- Livestock Operations

The BAAQMD's *CEQA Air Quality Guidelines* (May 2011) list examples of land uses that have the potential to generate considerable odors, which include the following:

- Wastewater treatment plants
- Landfills
- Confined animal facilities
- Composting stations
- Food manufacturing plants
- Refineries
- Chemical plants

As explained by BAAQMD, odors are generally regarded as an annoyance rather than a health hazard, and manifestations of a person's reaction to odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g. circulatory and respiratory effects, nausea, vomiting and headache).

3.2 Impact Analysis

On June 2, 2010, the BAAQMD adopted updated *CEQA Air Quality Guidelines*, which were again updated in May 2011. These guidelines describe the criteria that the BAAQMD proposed

for use when reviewing and commenting on the adequacy of documents prepared under CEQA, including technical documentation prepared to inform CEQA analysis, such as this report. The updated BAAQMD *CEQA Air Quality Guidelines* include recommended thresholds for use by Bay Area lead agencies in determining whether projects would have significant adverse air quality impacts, methodologies for predicting project emissions and impacts, and recommended measures that can be used to avoid or reduce significant air quality impacts.

This analysis uses the methodologies and thresholds in the *CEQA Air Quality Guidelines* as a reasonable approach to assessing the significance of impacts in light of the information and analysis presented in the Thresholds of Significance Justification prepared by BAAQMD staff, which is Appendix D to the *CEQA Air Quality Guidelines*.

Significance Thresholds. Air quality impacts of the project would be considered significant if they would exceed the following thresholds of significance, which are based on Appendix G of the *State CEQA Guidelines* and the May 2011 BAAQMD *CEQA Air Quality Guidelines*. According to Appendix G of the *State CEQA Guidelines*, a project would have a significant impact on local or regional air quality if it would:

- *Checklist Item 1: Conflict with or obstruct implementation of the applicable air quality plan;*
- *Checklist Item 2: Violate any air quality standard or contribute substantially to an existing or projected air quality violation;*
- *Checklist Item 3: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors);*
- *Checklist Item 4: Expose sensitive receptors to substantial pollutant concentrations; or*
- *Checklist Item 5: Create objectionable odors affecting a substantial number of people.*

The BAAQMD *CEQA Air Quality Guidelines* quantify these thresholds with defined numeric values and evaluation criteria for pollutant emissions. As noted above, although the Court of Appeal ruling with respect to the *CEQA Air Quality Guidelines* has been appealed and the Supreme Court has granted the petition for review, the City has decided that it will use the methodological approach and numeric thresholds in BAAQMD *CEQA Air Quality Guidelines* to determine whether the impacts of the project exceed the thresholds identified in Appendix G of the *State CEQA Guidelines*. The BAAQMD's evaluation criteria for determining air quality impacts provide defined thresholds for pollutant emissions. These quantitative thresholds for air quality impact evaluation from the BAAQMD *CEQA Air Quality Guidelines* are presented below.

Construction Emissions. Impacts related to construction emissions associated with the project would be considered significant if the construction emissions exceeded the following thresholds:

- *54 pounds per day of ROG*
- *54 pounds per day of NO_X*
- *82 pounds per day of PM_{10} (exhaust)*
- *54 pounds per day of $PM_{2.5}$ (exhaust)*

Operational Emissions. Impacts from direct and/or indirect operational emissions associated with the project would be considered significant if they exceeded the following daily or the annual emissions thresholds:

- *54 pounds per day or 10 tons per year of ROG*
- *54 pounds per day or 10 tons per year of NO_X*
- *82 pounds per day or 15 tons per year of PM_{10}*
- *54 pounds per day or 10 tons per year of $PM_{2.5}$*

Direct emissions are those that are emitted on a site and include emissions from stationary sources and on-site mobile equipment, if applicable. Examples of land uses and activities that generate direct emissions are industrial operations and sources subject to an operating permit by the BAAQMD. Indirect emissions come from mobile sources that access the project site, but generally are emitted off-site. For many types of land development projects, the principal source of air pollutant emissions is the motor vehicle trips generated by the project.

Toxic Air Contaminant Emissions. If project emissions of TACs or $PM_{2.5}$ during construction or project operation cause an existing sensitive receptor within a 1,000-foot radius to be exposed to levels that exceed any of the thresholds of significance listed below, the project would result in a significant impact and mitigation would be required.

- An excess cancer risk level of more than 10 in 1 million, or a non-cancer (chronic or acute) hazard index greater than 1.0.
- An incremental increase of more than 0.3 micrograms per cubic meter ($\mu g/m^3$) annual average $PM_{2.5}$.

A cumulative impact would be significant if the aggregate total of human health risks from all past, present, and foreseeable future TAC sources within a 1,000-foot radius of the fence line of a source or from the location of a receptor, plus the contribution from the project, exceeds the following thresholds, in which case the project's contribution toward that impact would need to be assessed to determine if it is cumulatively considerable:

- An excess cancer risk level of more than 100 in 1 million or a chronic non-cancer hazard index (from all local sources) greater than 10.0.
- 0.8 $\mu g/m^3$ annual average $PM_{2.5}$.

Localized Carbon Monoxide Concentrations. The impact associated with a project's indirect CO emissions is considered significant if the emissions will contribute to a violation of the state standards for CO (9.0 ppm averaged over 8 hours and 20 ppm over 1 hour).

Odors. For impacts associated with odors, the BAAQMD considers project operations that result in five confirmed complaints per year averaged over three years to have a significant impact.

Methodology. The construction emissions associated with development of the project (including demolition, site preparation, and construction) were calculated using the California Emissions Estimator Model (CalEEMod) version 2013.2.2. Average daily emissions from project construction were calculated, including both on-site and off-site activities. On-site activities

would consist of the operation of off-road construction equipment, as well as on-site truck travel (e.g., haul trucks, water trucks, dump trucks, and concrete trucks), whereas off-site sources would be emissions from construction vehicle trips. Demolition of the existing structure on the project site has been included in CalEEMod calculations.

CalEEMod was also used to estimate emissions from the operation of the existing on-site uses as well as the uses that would be associated with the project. The operational emissions from existing uses on the project site have been deducted from the total project emissions, to reflect the net change in development on the site as a result of project implementation. Operational emissions include mobile source emissions, area source emissions, and emissions from energy use. Mobile source emissions would be generated by the increase in motor vehicle trips to and from the project site associated with operation of the project. This analysis used daily Existing and project traffic generation rates from the Final Transportation Operations Analysis prepared by Kimley Horn (January 2016).

Area source emissions are generated by landscape maintenance equipment, consumer products, and architectural coating. Emissions attributed to energy use include natural gas consumption for space and water heating.

The BAAQMD recommends CO modeling for a project if the addition of project traffic would increase traffic volumes at affected intersections to more than 44,000 vehicles per hour. No intersections affected by the project would handle more than 44,000 vehicles per hour, and so no intersection-specific CO modeling is required (bulk CO emissions are quantified consistent with standard methodologies for BAAQMD as described in the above paragraphs).

Impacts.

a. Short-Term Construction Impacts. It is anticipated that the project would be constructed over a period of about six months. Construction activities would generate fugitive dust, ozone precursors, and diesel exhaust that could result in a short-term increase in criteria pollutants and may contribute to the existing non-attainment status for ozone, PM_{10}, and $PM_{2.5}$. ROG would be released during drying of architectural coatings. Demolition, site preparation, and grading would involve the greatest amount of heavy equipment and would therefore result in the most substantial generation of fugitive dust. The project site is generally flat, and includes existing structural development; therefore substantial volumes of cut and fill soil are not anticipated (approximately 2,400 CY of fill and 1,200 CY of cut). This analysis assumes that the 1.6-acre development area would be surface graded to prepare the site for the proposed development. Air quality modeling also includes demolition of the existing lumber pick-up building (approximately 7,600 square feet).

Table 3 summarizes the total maximum daily project emissions generated by on-site and off-site engine exhaust and dust during project demolition and construction.

Table 3
Online Ordering Grocery Store Project Maximum Daily Construction Emissions

Construction Year	ROG (lbs/day)	NO_X (lbs/day)	PM_{10} (lbs/day)	$PM_{2.5}$ (lbs/day)
2016	6.7	71.8	14.0	8.9
2017	10.9	2.2	0.2	0.2
Threshold of Significance	***54***	***54***	***82***	***54***
Thresholds Exceeded?	*No*	*Yes*	*No*	*No*

Source: CalEEMod winter output provided in Appendix.

As shown in Table 3, construction of the project would generate a maximum of 10.9 lbs/day of ROG, 71.8 lbs/day of NO_X, 14.0 lbs/day of PM_{10}, and 8.9 lbs/day of $PM_{2.5}$. Project emissions would exceed the BAAQMD *CEQA Air Quality Guidelines* construction emissions thresholds for NO_X. No other emissions would exceed the applicable construction emissions thresholds. Mitigation Measure AIR-2 below would reduce the NO_X emissions to a less than significant level.

The CEQA Air Quality Guidelines consider the impact from a project's construction-phase dust emissions to be less than significant if best management practices listed in the guidelines are implemented. Without these BMPs, the impact from fugitive dust emissions would be potentially significant. Mitigation Measure AIR-1 requires that the dust control and other BMPs put forth by the BAAQMD are implemented during construction of the project. With the implementation of the BAAQMD-recommended BMPs pursuant to Mitigation Measure AIR-1, the construction of the project would not result in substantial emissions of fugitive dust, ozone precursors, PM_{10}, or $PM_{2.5}$. Table 4 summarizes the mitigated maximum daily project emissions generated by on-site and off-site engine exhaust and dust during project demolition and construction.

Table 4
Online Ordering Grocery Store Project
Maximum Daily Mitigated Construction Emissions

Construction Year	ROG (lbs/day)	NO_X (lbs/day)	PM_{10} (lbs/day)	$PM_{2.5}$ (lbs/day)
2016	1.6	27.8	6.1	3.8
2017	10.6	1.4	0.1	0.1
Threshold of Significance	***54***	***54***	***82***	***54***
Thresholds Exceeded?	*No*	*No*	*No*	*No*

Source: CalEEMod winter output provided in Appendix.

As shown in Table 4, with implementation of Mitigation Measure AIR-2, the construction of the project would not result in a threshold exceedance of NO_X, and the impact associated with construction-period emissions would be less than significant **[Checklist Item 4]**.

Mitigation Measures

Mitigation Measure AIR-1: BAAQMD Dust and Emission Control BMPs. The construction contractor(s) shall implement the following BMPs during project construction:

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

Mitigation Measure AIR-2: Tier 3 Protections on Specific Equipment, and Idling Limitation. Contractors shall be required, as a condition of contract, to only operate construction equipment with Tier 3 engines or CARB-certified Level 3 Verified Diesel Emission Control System (VDECS), such as a diesel particulate filter (DPF), installed on Tier 3 equipment. Level 3 DPFs remove at least 85 percent of diesel particulate matter. DPF installation can also results in co-benefits for other CAPs, such as NO_X and ROG (CARB, 2014). At a minimum, these Tier 3 protections shall be implemented on all skip loaders, loaders, forklifts, and air compressors used by contractors. Contractors shall be restricted to a two minute idling limit on all construction equipment.

As an alternative, the project shall achieve a performance standard of not exceeding the BAAQMD thresholds relating to NO_X, which shall be demonstrated to the satisfaction of the City by a qualified air quality consultant.

b. Long-Term Operational Impacts. The majority of project-related operational emissions would be due to vehicle trips to and from the site. Potential operational emissions were estimated using CalEEMod for the project. Table 5 summarizes the estimated net increase

in emissions associated with operation of the project, including the total emissions associated with operation of the existing home improvement superstore and the proposed modifications to the home improvement superstore. Refer to *Methodology* above for discussion of trip generation rates that were used in the CalEEMod air quality modeling for the project.

Table 5
Estimated Operational Air Pollutant Emissions

Emissions Source	Estimated Emissions (lbs/day)					
	ROG	NO_X	PM_{10}	$PM_{2.5}$	CO	SO_X
Existing On-Site Use (Hardware Superstore with Lumber Yard)						
Area	1.5	<0.1	<0.1	<0.1	<0.1	<0.1
Energy	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Area & Energy Emissions	*1.5*	*<0.1*	*<0.1*	*<0.1*	*<0.1*	*<0.1*
Future On-Site Uses (Reduced Hardware Superstore with Lumber Yard)						
Area	1.3	<0.1	<0.1	<0.1	<0.1	<0.1
Energy	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Area & Energy Emissions	*1.3*	*<0.1*	*<0.1*	*<0.1*	*<0.1*	*<0.1*
Future On-Site Uses (Proposed Online Ordering Grocery Store)						
Area	0.7	<0.1	<0.1	<0.1	<0.1	<0.1
Energy	<0.1	0.7	<0.1	<0.1	0.6	<0.1
Mobile [1]	3.3	4.5	2.4	0.7	26.5	<0.1
Total Area, Energy & Mobile Emissions	*4.1*	*5.2*	*2.5*	*0.7*	*27.1*	*<0.1*
Threshold of Significance	*54*	*54*	*82*	*54*	*N/A*	*N/A*
Thresholds Exceeded by Gross Emissions?	*No*	*No*	*No*	*No*	*No*	*No*
Net Increase in On-Site Emissions as a Result of the Project (Proposed Project Uses – Existing On-Site Uses)						
Difference (Future Uses Minus Existing Uses)	*3.9*	*5.2*	*2.5*	*0.7*	*27.1*	*<0.1*
Threshold of Significance	54	54	82	54	N/A	N/A
Threshold Exceeded by Net Emissions?	No	No	No	No	No	No

[1]Mobile emissions are not included in the hardware superstore emissions because the net change of existing trips was accounted for in the Traffic Report, which was used to calculate the project (Proposed Online Ordering Grocery Store) emissions.
See Appendix for CalEEMod output (winter).

As shown in Table 5, new project-generated emissions would not exceed applicable BAAQMD thresholds for any criteria pollutant. Furthermore, based on the reduction in the existing on-site hardware superstore, the net emissions associated with the project would be further reduced, and would not exceed applicable BAAQMD thresholds for any criteria pollutant. Therefore, operational air quality impacts associated with operation of the project would be less than significant **[Checklist Item 2]**.

Mitigation Measures

No mitigation would be required.

c. Localized Pollutant Concentrations.

Exposure to Pollutant Concentrations During Construction. BAAQMD recommends that evaluation of community risk associated with construction activity be addressed on a case-by-case basis, taking into consideration the specific construction-related characteristics of each project and proximity to off-site receptors. Construction-related activities could result in the generation of TACs, specifically diesel PM, from on-road haul trucks and off-road equipment exhaust emissions. Due to the variable nature of construction activity, the generation of TAC emissions in most cases would be temporary, especially considering the short amount of time such equipment is typically within an influential distance that would result in the exposure of sensitive receptors to substantial concentrations. While off-site construction activity, such as on-road haul trucks, would result in diesel PM emissions, such emissions would be distributed along haul routes, rather than concentrated at the project site. Because of the short-term, distributed nature of these emissions, they would not contribute substantially to potential health risks near the project site, along haul routes, or elsewhere in the basin. Therefore, this analysis focuses on potential health risks associated with activity occurring on the project site during the construction phase.

The nearest potential sensitive receptors to the project site include the Cherry Orchard Apartments located immediately north and the Fall River Terrace residences located immediately south of the project site. Additionally, Cumberland Elementary School is located approximately 0.5 miles west and Valley Health Center hospital is located approximately 0.6 miles east of the project site. It is anticipated that the project would be constructed over a period of about six months, and would involve the use of standard diesel-powered construction equipment associated with demolition and building construction in an urban area (refer to the Appendix for the list of default construction equipment assumed by CalEEMod, as well as anticipated daily operation hours required to construct the project within the 12-month construction phase). The analysis is based on these environmentally conservative default assumptions; most construction projects employ fleets that have more modern, cleaner engines (e.g., Tier 3 or higher) and filters than are reflected in the default assumptions. Table 6 shows the maximum daily emissions of $PM_{2.5}$ exhaust on-site during each phase of project construction, as well as the anticipated length of each phase of construction in working days.

Table 6
Maximum Daily On-Site $PM_{2.5}$ Exhaust Emissions

Construction Phase	On-Site $PM_{2.5}$ Exhaust (lbs/day)	Duration (days)
Demolition	0.8	25
Site Preparation	1.5	3
Grading	1.9	8
Building Construction	0.8	21
Paving	0.7	10
Architectural Coating	0.2	16

Source: CalEEMod winter output provided in Appendix.

As shown in Table 6, on-site emissions of $PM_{2.5}$ exhaust would not exceed 1.9 lbs/day during construction of the project, and would not be expected to exceed 0.8 lbs/day for a period in

excess of 20 days. As described in Section 3.2(a) of this report, *Short-Term Construction Impacts*, on-site and overall emissions of $PM_{2.5}$ would be far below the applicable BAAQMD regional threshold of 54 lbs/day during the construction period (refer to Table 4). In addition, the project vicinity is not an area where vertical and/or horizontal mixing is substantially limited (e.g., a tunnel, parking garage, bridge underpass, natural or urban street canyon, or below-grade roadway). Accordingly dispersal of on-site emissions is not substantially limited. Because $PM_{2.5}$ emissions would be relatively low compared to the applicable BAAQMD regional threshold, and because the construction period would be well under one year (approximately 83 days, or about 17 weeks), short-term emissions of $PM_{2.5}$ during the construction period would not reasonably be expected to result in an exceedance of the BAAQMD's annual average $PM_{2.5}$ concentration threshold of 0.3 $\mu g/m^3$ or the BAAQMD's cumulative annual average $PM_{2.5}$ concentration threshold of 0.8 $\mu g/m^3$. Implementation of BAAQMD recommended dust and emission control BMPs would further reduce diesel PM exhaust emissions. Mitigation Measure 1 requires that the dust control and other BMPs put forth by the BAAQMD are implemented during construction of the project. With the implementation of the BAAQMD-recommended BMPs pursuant to Mitigation Measure 1, the construction of the project would not result in substantial emissions of $PM_{2.5}$, and the impact associated with construction-period localized pollutant concentrations would be less than significant **[Checklist Item 4]**.

Exposure to Pollutant Concentrations During Operation. Operational activities on the project site would not generate TACs or $PM_{2.5}$ emissions on the project site that could affect the health of the community near the project site, because the vast majority of the vehicles associated with the project would operate on gasoline and not diesel which is the primary source of TACs and $PM_{2.5}$. As a retail grocery outlet, operation of the project would also involve delivery truck trips, including an estimated two to three trucks per day operating transport refrigeration units (TRUs) (approximately 12 trips per week). TRUs emit diesel exhaust, and are described as a potential source of concern in ARB's *Air Quality and Land Use Handbook* (April 2005). According to the *Air Quality and Land Use Handbook*, sensitive land uses should not be located within 1,000 feet of a land use that accommodates more than 100 trucks per day, or more than 40 trucks operating TRUs per day, or where TRU operations exceed 300 hours per week. Therefore, diesel particulate emissions associated with operational of the project would not reach a level identified by ARB as resulting in a significant cancer risk, and would not result in a significant impact, or a cumulatively considerably contribution to an existing cumulative human health impact.

CO emitted by project traffic is the criteria pollutant that would have the potential to result in substantial pollutant concentrations. Congested intersections with a large volume of traffic have the greatest potential to cause high, localized concentrations of CO. Air pollutant monitoring data indicate that CO 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. Table 2 lists the highest 8-hour carbon monoxide concentrations that have been recorded at the Cupertino – Voss Avenue monitoring station in the past four years. The highest measured level over any 8-hour averaging period during the last four years is less than 1.0 ppm, compared to the ambient air quality standard of 9.0 ppm. The project would generate a relatively small amount of new traffic, approximately 978 new trips during the day. BAAQMD screening guidance indicates that the project would have a less than significant impact with respect to CO levels if the addition of project traffic would not increase the total traffic at any affected intersection to more than 44,000 vehicles per hour. As described above, the project

vicinity is not an area where vertical and/or horizontal mixing is substantially limited (e.g., a tunnel, parking garage, bridge underpass, natural or urban street canyon, or below-grade roadway). Accordingly, the 44,000 vehicles per hour screening threshold does not apply. Local traffic volumes available from the City of Sunnyvale Public Works Department indicate that nearby intersections operate at levels well below the 44,000 vehicle per hour screening criteria. Traffic from the project would not cause any local intersection to exceed 44,000 vehicles per hour. Additionally, operations would consist of a limited customer wait time of five to ten minutes, idling and queuing controls, and signage and employee instruction to ensure compliance with the necessary procedures to reduce emissions from the project. Therefore, the project would not result in the violation of the CO standards and would not expose sensitive receptors to substantial CO concentrations. This impact would be less than significant.

In addition to this qualitative analysis, a Health Risk Assessment (HRA) was completed for the project by Michael Baker International, Inc. in November 2015 (Michael Baker International, Inc., 2015). The HRA determined that the annual average $PM_{2.5}$ concentration would be below BAAQMD thresholds and the calculated risk would be 1.19 in one million during the longest exposure period of 70 years, which is below the BAAQMD Cancer Risk Threshold of 10 in one million. Additionally, the HRA found that operational emissions would not exceed the Chronic and Acute Hazard Index Threshold of 1.0. These conclusions are appropriate, and are consistent with the analysis set forth above. The project will not expose sensitive receptors to substantial $PM_{2.5}$ concentrations. This impact would be less than significant **[Checklist Item 4]**.

Mitigation Measures

No mitigation would be required. The project's proposal to incorporate clear signage and employee instruction to ensure that patrons do not idle their vehicles for more than five minutes while waiting for service would further reduce pollutant emissions.

d. Objectionable Odors. The project does not include any uses identified in ARB's *Air Quality and Land Use Handbook* (April 2005) or the BAAQMD's *CEQA Air Quality Guidelines* listed above in Section 3.1, *Air Quality* as common sources of objectionable odors or odor complaints. The project may result in normal odor levels associated with food preparation. However, odors associated with food preparation would be substantially lower than other uses specializing in prepared foods, such as restaurants, and would be consistent with the existing zoning for the project site and surrounding uses, and would not be expected to conflict with any adjacent or neighboring properties. Therefore, the project would not result in substantial odors that would affect any nearby sensitive receptors, and this impact would be less than significant. **[Checklist Item 5]**.

Mitigation Measures

No mitigation would be required.

e. Clean Air Plan Consistency. According to BAAQMD's *CEQA Air Quality Guidelines* (2011), an air quality plan refers to clean air plans, state implementation plans (SIPS), ozone plans, and other potential air quality plans developed by BAAQMD. To date, BAAQMD's most current air quality plan is the 2010 CAP. The consistency analysis should evaluate whether the project is consistent with the goals, control measures, and strategies outlined in the CAP. If the

project is consistent with these components, it would be considered consistent with the CAP. Goals of the CAP include: attainment of air quality standards and reduction of population exposure and protecting public health in the Bay Area. As described above, the project would exceed the quantitative air quality standards for NO_X during the construction period established for BAAQMD. However, this impact would be mitigated to a level that is less than significant through compliance with Mitigation Measures AIR-1 and AIR-2, above, and the project would not present any local risks to public health associated with air pollutants emissions. The 2010 CAP includes 55 control measures aimed at reducing air pollution in the Bay Area. Along with the traditional stationary, area, mobile source, and transportation control measures, the 2010 CAP contains Land Use and Local Impact (LUM) measures and Energy and Climate measures (ECM) designed to promote mixed use and compact development to reduce vehicle emissions and exposure to pollutants from stationary and mobile sources. BAAQMD encourages project developers and lead agencies to incorporate these measures into project designs and plan elements. If approval of a project would not cause the disruption, delay, or otherwise hinder the implementation of any air quality plan control measure, it would be considered consistent with the 2010 CAP. As described above, the project would be required to comply with basic and optional control measures which would reduce air pollution resulting from construction activities. The following elements of the project would assist in the implementation of applicable measures included in the 2010 CAP:

1. *Provision of a dedicated high-efficiency vehicle parking space in the parking lot area – 2010 CAP Mobile source measure A-1: Promote Clean, Fuel Efficient Light & Medium-Duty Vehicles;*
2. *Provision of a dedicated carpool parking space in the parking lot area – 2010 CAP Transportation control measure TCM C-3: Promote Rideshare Services and Incentives; and*
3. *Provision of new bicycle parking stalls – 2010 CAP Transportation control measure TCM D-1: Improve Bicycle Access and Facilities.*
4. *Provision of a new accessible path of travel through project site for pedestrians – 2010 CAP Transportation control measure TCM D-2: Improve Pedestrian Access and Facilities*

In addition to the components of the project that aid in the implementation of the 2010 CAP control measures, the project would not result in long-term emissions which exceed BAAQMD's operational emissions thresholds. For these reasons, the project would not conflict with or obstruct continued implementation of the Clean Air Plan. This impact would be less than significant **[Checklist Item 1]**.

Based on BAAQMD guidance for Clean Air Plan consistency, the determination that the project would not conflict with or obstruct continued implementation of the 2010 CAP means that the project would not have a cumulatively considerable contribution to regional air quality impacts. Therefore, cumulative impacts to air quality would be less than significant **[Checklist Item 3]**.

Mitigation Measures

No mitigation would be required.

4.0 GREENHOUSE GASES

This section analyzes greenhouse gas emissions associated with the project and potential impacts related to climate change.

4.1 Setting

a. Climate Change and Greenhouse Gases. Climate change refers to changes in climate (such as wind patterns, precipitation, and storm frequency/intensity) over an extended period of time resulting from observed increases in the average temperature of the Earth's atmosphere and oceans. The term "climate change" is often used interchangeably with the term "global warming," but "climate change" is preferred to "global warming" because it helps convey that there are other changes in addition to rising average temperatures. The baseline against which these changes are measured originates in historical records identifying temperature changes that have occurred in the past, such as during previous ice ages. The global climate is continuously changing, as evidenced by repeated episodes of substantial warming and cooling documented in the geologic record. The rate of change has typically been incremental, with warming or cooling trends occurring over the course of thousands of years. The past 10,000 years have been marked by a period of incremental warming, as glaciers have steadily retreated across the globe. However, scientists have observed acceleration in the rate of warming during the past 150 years. Per the United Nations Intergovernmental Panel on Climate Change (IPCC, 2013), the understanding of anthropogenic warming and cooling influences on climate has led to a high confidence (95 percent or greater chance) that the global average net effect of human activities has been the dominant cause of warming since the mid-20th century (IPCC, 2013).

Gases that absorb and re-emit infrared radiation in the atmosphere are called greenhouse gases GHGs. The gases that are widely seen as the principal contributors to human-induced climate change include carbon dioxide (CO_2), methane (CH_4), nitrous oxides (N_2O), fluorinated gases such as hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). Water vapor is excluded from the list of GHGs because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

b. Greenhouse Gas Emissions Inventory. Worldwide anthropogenic emissions of GHGs were approximately 46,000 million metric tons (MMT, or gigatonne) CO_2e in 2010 (IPCC, 2014). CO_2 emissions from fossil fuel combustion and industrial processes contributed about 65 percent of total emissions in 2010. Of anthropogenic GHGs, CO_2 was the most abundant accounting for 76 percent of total 2010 emissions. CH_4emissions accounted for 16 percent of the 2010 total, while N_2O and fluorinated gases account for 6 and 2 percent respectively (IPCC, 2014).

Total U.S. GHG emissions were 6,673.0 MMT CO_2e in 2013 (U.S. EPA, 2015). Total U.S. emissions have increased by 5.9 percent since 1990; emissions increased by 2.0 percent from 2012 to 2013 (U.S. EPA, 2014). The increase from 2012 to 2013 was due to an increase in the carbon intensity of fuels consumed to generate electricity due to an increase in coal consumption, with decreased natural gas consumption. Additionally, relatively cool winter conditions resulted in an overall increase in fuels for the residential and commercial sectors for heating. Since 1990, U.S. emissions have increased at an average annual rate of 0.3 percent. In 2013, industrial and transportation end-use sectors accounted for 28.8 percent and 27.1 percent of CO_2 emissions (with electricity-related emissions distributed), respectively. Meanwhile, the residential and commercial end-use sectors accounted for 16.9 percent of CO_2 emissions each (U.S. EPA, 2015).

Based upon the California Air Resources Board (ARB) California Greenhouse Gas Inventory for 2000-2013, California produced 459.3 MMT CO_2e in 2013 (ARB, 2015). The major source of GHG

in California is transportation, contributing 37 percent of the state's total GHG emissions. Industrial sources are the second largest source of the state's GHG emissions (CARB, 2015). California emissions are due in part to its large size and large population compared to other states. However, per capita emissions are lower than in many other states. A factor that reduces California's per capita fuel use and GHG emissions, as compared to other states, is its relatively mild climate. The ARB has projected statewide unregulated GHG emissions for the year 2020 will be 509.4 MMT CO_2e (ARB, 2014). These projections represent the emissions that would be expected to occur in the absence of any GHG reduction actions.

c. Potential Effects of Climate Change. Globally, climate change has the potential to affect numerous environmental resources through potential impacts related to future air, land, and water temperatures and precipitation patterns. Scientific modeling predicts that continued GHG emissions at or above current rates would induce more extreme climate changes during the 21st century than were observed during the 20th century. Long-term trends have found that each of the past three decades has been warmer than all the previous decades in the instrumental record, and the decade from 2000 through 2010 has been the warmest. The global combined land and ocean temperature data show an increase of about 0.89°C (0.69°C–1.08°C) over the period 1901–2012 and about 0.72°C (0.49°C–0.89°C) over the period 1951–2012 when described by a linear trend. Several independently analyzed data records of global and regional Land-Surface Air Temperature (LSAT) obtained from station observations are in agreement that LSAT, as well as sea surface temperatures, has increased. In addition to these findings, there are identifiable signs that global warming is currently taking place, including substantial ice loss in the Arctic over the past two decades (IPCC, 2013).

According to the California Environmental Protection Agency's (CalEPA) *2010 Climate Action Team Biennial Report*, potential impacts of climate change in California may include decreased snow pack, sea level rise, and increase in extreme heat days per year, high ground-level ozone days, large forest fires, and drought (CalEPA, 2010). Potential impacts that could be experienced in California as a result of climate change include air quality, water supply, hydrology and sea level rise, agriculture, and ecosystems and wildlife.

4.2 Regulatory Setting

The following regulations address both climate change and GHG emissions.

California Regulations. California Air Resources Board (ARB) is responsible for the coordination and oversight of State and local air pollution control programs in California.

California's major initiative for reducing GHG emissions is outlined in Assembly Bill 32 (AB 32), the "California Global Warming Solutions Act of 2006," signed into law in 2006. AB 32 codifies the statewide goal of reducing GHG emissions to 1990 levels by 2020 (essentially a 15 percent reduction below 2005 emission levels; the same requirement as under S-3-05), and requires ARB to prepare a Scoping Plan that outlines the main State strategies for reducing GHGs to meet the 2020 deadline. In addition, AB 32 requires ARB to adopt regulations to require reporting and verification of statewide GHG emissions.

After completing a comprehensive review and update process, ARB approved a 1990 statewide GHG level and 2020 limit of 427 MMT CO_2e. The Scoping Plan was approved by ARB on December 11, 2008, and included measures to address GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among other measures.

Many of the GHG reduction measures included in the Scoping Plan (e.g., Low Carbon Fuel Standard, Advanced Clean Car standards, and Cap-and-Trade) have been adopted over the last five years. Implementation activities are ongoing and ARB is currently the process of updating the Scoping Plan.

In May 2014, ARB approved the first update to the AB 32 Scoping Plan. The 2013 Scoping Plan update defines ARB's climate change priorities for the next five years and sets the groundwork to reach post-2020 goals set forth in EO S-3-05. The update highlights California's progress toward meeting the "near-term" 2020 GHG emission reduction goals defined in the original Scoping Plan. It also evaluates how to align the State's longer-term GHG reduction strategies with other State policy priorities, such as for water, waste, natural resources, clean energy and transportation, and land use (ARB, 2014).

Senate Bill (SB) 375, signed in August 2008, enhances the state's ability to reach AB 32 goals by directing ARB to develop regional GHG emission reduction targets to be achieved from passenger vehicles for 2020 and 2035. In addition, SB 375 directs each of the state's 18 major Metropolitan Planning Organizations (MPO) to prepare a "sustainable communities strategy" (SCS) that contains a growth strategy to meet these emission targets for inclusion in the Regional Transportation Plan (RTP). On September 23, 2010, ARB adopted final regional targets for reducing GHG emissions from 2005 levels by 2020 and 2035.

For more information on the Senate and Assembly Bills, Executive Orders, and reports discussed above, and to view reports and research referenced above, please refer to the following websites: www.climatechange.ca.gov and www.arb.ca.gov/cc/cc.htm.

California Environmental Quality Act. Pursuant to the requirements of SB 97, the Resources Agency has adopted amendments to the State CEQA Guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions. The adopted CEQA Guidelines provide general regulatory guidance on the analysis and mitigation of GHG emissions in CEQA documents, while giving lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHGs and climate change impacts. To date, a variety of air districts have adopted quantitative significance thresholds for GHGs. To date, the Bay Area Air Quality Management District (BAAQMD), the South Coast Air Quality Management District (SCAQMD), the San Luis Obispo Air Pollution Control District (SLOAPCD), and the San Joaquin Air Pollution Control District (SJVAPCD) have adopted quantitative significance thresholds for GHGs.

In June 2010, the BAAQMD adopted thresholds of significant for GHG emissions (*California Environmental Quality Act Air Quality Guidelines,* June 2010). The plan-level thresholds for GHG emissions was in compliance with a "qualified GHG reduction strategy" or 6.6 MT CO_2e/service population/year for General Plans and 4.6 MT CO_2e/service population/year for Specific Plans. According to the Guidelines, a qualified GHG reduction strategy is one that includes the following elements:

a) *Quantify greenhouse gas emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area.*
b) *Establish a level, based on substantial evidence, below which the contribution to GHG emissions from activities covered by the plan would not be cumulatively considerable.*

c) *Identify and analyze the GHG emissions resulting from specific actions or categories of actions anticipated within the geographic area.*
d) *Specify measures or a group of measures, including performance standards that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level.*
e) *Monitor the plan's progress*
f) *Adopt the GHG Reduction Strategy in a public process following environmental review.*

Local Regulations. In 2005, the BAAQMD initiated a Climate Protection Program. On June 1, 2005 the Air District Board of Directors adopted a resolution establishing a Climate Protection Program and acknowledging the link between climate protection and programs to reduce air pollution in the Bay Area. On April 2, 2014, the Board of Directors of the BAAQMD voted to approve the 10-Point Climate Action Work Program which includes policy approaches and a technical program focused on reducing GHG emissions.

In May 2014, the City of Sunnyvale adopted the Climate Action Plan (2014 CAP). According to the criteria described in the BAAQMD's 2010 CEQA Guidelines and listed above, the 2014 CAP qualifies as a GHG reduction strategy. With implementation of the measures contained in the 2014 CAP, the County would achieve a 15 percent reduction in GHG emissions below 2008 levels by 2020 and would reduce the GHG emission to service population ratio to approximately 434,890 MT CO_2e. The 2014 CAP includes GHG reduction goals, measures, and actions in the areas of transportation, land use, building energy, water, waste, and green infrastructure. Together, these enable the City to achieve its climate protection goals.

4.3 Impact Analysis

Significance Thresholds. Based on Appendix G of the *State CEQA Guidelines*, impacts related to GHG emissions from the project would be significant if the project would:

- *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; and/or*
- *Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.*

The vast majority of individual projects do not generate sufficient GHG emissions to, in isolation, create a direct impact on climate change. Rather it is the increased accumulation of GHGs from more than one project and many sources in the atmosphere that may result in climate change, which can cause the adverse environmental effects previously discussed. Accordingly, the threshold of significance for GHG emissions determines whether a project's contribution to climate change is "cumulatively considerable." "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (CEQA Guidelines, § 15355).

Because the 2014 CAP underwent environmental review under CEQA, is intended to reduce the City's impact on climate change, and is consistent with BAAQMD qualification standards described in their June 2010 *CEQA Guidelines*, projects that are consistent with the 2014 CAP would not have a significant climate change impact. Therefore, the project's contribution to cumulative

impacts related to GHG emissions and climate change would not be cumulatively considerable if the project would not conflict with the 2014 CAP.

Study Methodology. Calculations of CO_2, CH_4, and N_2O emissions are provided to identify the magnitude and nature of the project's potential GHG emissions and environmental effects. The analysis focuses on CO_2, CH_4, and N_2O because these make up 98.9 percent of all GHG emissions by volume (IPCC, 2007) and are the GHG emissions that the project would emit in the largest quantities. Fluorinated gases, such as HFCs, PFCs, and SF_6, were also considered for the analysis, but the quantity of fluorinated gases would not be significant since fluorinated gases are primarily associated with industrial processes. GHG emissions associated with the project were calculated using the California Emissions Estimator Model CalEEMod version 2013.2.2. Emissions of all GHGs are converted into their equivalent GWP in MT CO_2e. Small amounts of other GHGs (such as chlorofluorocarbons [CFCs]) would also be emitted; however, these other GHG emissions would not substantially add to the total GHG emissions. Calculations are based on the methodologies discussed in the California Air Pollution Control Officers Association (CAPCOA) *CEQA and Climate Change* white paper (CAPCOA, 2008) and included the use of the California Climate Action Registry (CCAR) General Reporting Protocol (CCAR, 2009).

Construction Emissions. The BAAQMD has not established a threshold of significance for construction-related GHG emissions. Nevertheless, air districts such as the SLOACPD (2012) have recommended amortizing construction-related emissions over a 25-year period for commercial projects and a 50-year period for residential projects in conjunction with the project's operational emissions. In order to estimate the annual emissions that would result from construction activity associated with the project, GHGs from construction projects are quantified and amortized over a 25-year period. This period provides a slightly more conservative analysis than the one the City used in the previously published MND, which amortized emissions over a 30-year life of the project. The amortized construction emissions are added to the annual average operational emissions and then compared to the applicable operational threshold. Construction activities are assumed to begin in August of 2016 and to occur over approximately six months. Emissions associated with the construction period were estimated using CalEEMod, based on the projected maximum amount of equipment that would be used on-site at one time. Complete CalEEMod results and assumptions can be viewed in the Appendix.

On-Site Operational Emissions. The default values included in CalEEMod are based on the California Energy Commission (CEC) sponsored California Commercial End Use Survey (CEUS) and Residential Appliance Saturation Survey (RASS) studies. CalEEMod provides operational emissions of CO_2, N_2O, and CH_4. This methodology is considered reasonable and reliable for use, as it has been subjected to peer review by numerous public and private stakeholders, and in particular by the CEC. It is also recommended by CAPCOA (January 2008).

Emissions associated with area sources, including consumer products, landscape maintenance, and architectural coating were calculated in CalEEMod based on standard emission rates from CARB, U.S. EPA, and district supplied emission factor values (CalEEMod User Guide, 2011).

Emissions from waste generation were also calculated in CalEEMod and are based on the IPCC's methods for quantifying GHG emissions from solid waste using the degradable organic content of waste (CalEEMod User Guide, 2011). Waste disposal rates by land use and overall composition of

municipal solid waste in California was primarily based on data provided by the California Department of Resources Recycling and Recovery (CalRecycle).

Emissions from water and wastewater usage calculated in CalEEMod were based on the default electricity intensity from the CEC's 2006 Refining Estimates of Water-Related Energy Use in California using the average values for Northern and Southern California.

Direct Emissions from Mobile Combustion. Emissions of CO_2 and CH_4 from transportation sources were quantified using CalEEMod, see the Appendix. Because CalEEMod does not calculate N_2O emissions from mobile sources, N_2O emissions were quantified by Rincon Consultants, using the California Climate Action Registry General Reporting Protocol (January 2009) direct emissions factors for mobile combustion (see Appendix B for calculations). The estimate of total daily trips associated with the project area was based the Final Transportation Operations Analysis prepared for the project by Kimley Horn (Kimley Horn, 2016). The traffic analysis developed trip generation estimates using rates contained in the ninth edition of the Institute of Transportation Engineers (ITE) Trip Generation report. Emission rates for N_2O emissions were calculated based on the vehicle mix output generated by CalEEMod and the emission factors found in the California Climate Action Registry General Reporting Protocol.

Project Impacts

As discussed above in Section 4.3.2(a), GHG emissions for the project were estimated using CalEEMod. See the Appendix for detailed emissions calculations worksheets.

Construction Emissions. Construction activity is assumed to occur over a period of approximately six months. Based on CalEEMod results, construction activity for the project would generate an estimated 62.5 MT CO_2e (see Table 7). Amortized over a 25-year period, the assumed life of the project, construction of the project would generate approximately 2.5 MT CO_2e/year.

Table 7
Estimated Construction Emissions of Greenhouse Gases

Year	Annual Emissions MT CO_2e/year
Construction of total project	**62.5**
Amortized over 25 years	2.5

See Appendix for CalEEMod results

Operational Emissions. Long-term source of emissions include mobile source emissions, area source emissions, emissions from energy use, solid waste, and water use. Each of these sources are discussed below.

Transportation Emissions. Total vehicle miles traveled (VMT) were projected by multiplying the number of daily project trips from the Final Transportation Operations Analysis prepared by Kimley Horn (January 2016) by the CalEEMod default trip lengths. Based on the CalEEMod estimates, on-site development would generate approximately 1.1 million VMT per year. As noted above, CalEEMod does not calculate N_2O emissions related to mobile sources. As such, N_2O emissions were calculated based on the project's estimated VMT using calculation

methods provided by the California Climate Action Registry General Reporting Protocol (January, 2009). The project would generate approximately 490 MT CO_2e/year from mobile emissions.

Area Source Emissions. CalEEMod was used to calculate direct sources of GHG emissions from the project. These included landscape maintenance equipment, consumer products, and architectural coating. GHG emissions from area sources were calculated to be less than 0.1 MT CO_2e/year.

Energy Use. Operation of on-site development would consume both electricity and natural gas. The generation of electricity through combustion of fossil fuels typically yields CO2, and to a smaller extent, N_2O and CH_4. As discussed above, annual electricity and natural gas emissions can be calculated using default values from the CEC sponsored CEUS and RASS studies which are built into CalEEMod. Electricity consumption associated with the project would generate approximately 121 MT of CO_2e per year and natural gas use would generate approximately 131 MT of CO_2e per year (see Appendix B for full results and calculations). Thus, overall energy use at the project site would generate approximately 252 MT of CO_2e per year.

Solid Waste Emissions. In accordance with AB 939, the CalEEMod emissions estimate assumes by default that the project would achieve at least a 50 percent diversion rate of recyclable materials. Based on this estimate, solid waste associated with the project would generate approximately 61 MT of CO_2e per year.

Water Use Emissions. Based on the amount of electricity used to supply and convey water for the project, water use associated with the project would result in approximately 10 metric tons of CO_2e per year.

Combined Operational and Construction Emissions. Table 8 shows the combined construction, operational indirect, and stationary direct GHG emissions associated with development of the project.

Table 8
Combined Annual Emissions of Greenhouse Gases

Emission Source	Annual Emissions
Amortized Construction	2.5 MT CO_2e
Operational	
Area	<0.1 MT CO_2e
Energy	252.2 MT CO_2e
Solid Waste	60.8 MT CO_2e
Water	10.2 MT CO_2e
Mobile	
CO_2 and CH_4	465.8 MT CO_2e
N_2O	24.2 MT CO_2e
Total	**815.8 MT CO_2e**

Sources: See Appendix for calculations and for GHG emission factor assumptions.
Note: All numbers may not add due to rounding.

As shown in Table 8 the quantified emissions are below the BAAQMD bright-line threshold of 1,100 MT CO_2e.

An alternate analysis was conducted to compare the annual, un-amortized emissions to the BAAQMD bright-line threshold. GHG emissions over the six month construction period were added to a six-month period of operational GHG emissions to arrive at total annual emissions for the first year of the project. The construction emissions of 62.5 MT CO_2e, plus half of the operational annual emissions totals approximately 457 MT CO_2e, which is less than the BAAQMD bright-line threshold of 1,100 MT CO_2e.

As discussed under *Regulatory Setting*, the City of Sunnyvale adopted the CAP in 2014. The 2014 CAP serves as a Qualified GHG Reduction Strategy consistent with State CEQA Guidelines and BAAQMD. It outlines a programmatic approach for evaluating whether a project would have a significant climate change impact by determining whether a project is consistent with the 2014 CAP. A project that relies on the 2014 CAP for its cumulative GHG emissions analysis should be consistent with ABAG population projections, support or include applicable GHG reduction actions, strategies, and measures, and should not interfere with implementation of 2014 CAP actions, strategies, or measures.

The project involves construction of a new online ordering grocery store and would not result in a population increase. As a result, the project would be consistent with ABAG population projections. The project would include and support applicable GHG reduction actions, strategies, and measures and would not interfere with the 2014 CAP actions strategies or measures. Table 9 describes the project's consistency with applicable City 2014 CAP measures.

Table 9
Project Consistency with City of Sunnyvale Climate Action Plan (CAP)

Strategy	Project Consistency
Building Energy	
Decrease Building Energy Consumption	
EC-1: Lighting Efficiency. Increase the use of efficient indoor and outdoor lighting technologies.	**Consistent** The project would be required to comply with Title 24 energy efficiency standards and would incorporate light emitting diode (LED) lights on the inside of the building. In addition, the streetlights included in the project would also incorporate LED lights which are more efficient than traditional lighting methods.
EC-2: New Construction And Remodels. Require green building practices in new residential and commercial development and remodels.	**Consistent** The project would comply with the City's Green Building Program and the City of Sunnyvale Municipal Code Chapter 19.39, Green Building Regulations, which implements sustainable development with development and construction practices.

Table 9
Project Consistency with City of Sunnyvale Climate Action Plan (CAP)

Strategy	Project Consistency
Decrease Water Consumption	
WC-2: *Water Conservation*. Reduce indoor and outdoor potable water use in residences, businesses, and industry.	**Consistent** The project would comply with all applicable regulations and ordinances, including the State Landscape Ordinance and CalGreen standards as well as City of Sunnyvale Municipal Code Chapter 12.34, Water Conservation Restrictions, which require water use restrictions.
Off-Road Equipment	
OR-2:Construction Equipment. Reduce emissions from heavy-duty construction equipment by limiting idling and utilizing cleaner fuels, equipment, and vehicles.	**Consistent** The project would be required to comply with Bay Area Air Quality Management District Basic Construction Mitigation Measure which includes dust control procedures such as limiting idling on-site vehicle speeds, minimizing idling times by shutting equipment off when not in use or reducing the maximum idling time to two minutes, and ensuring all construction equipment be properly maintained and tuned in accordance with manufacturer's specifications.
Improve Mobility Through Land Use Planning	
LUP-3:Local Commerce and Food. Increase the amount of locally generated and consumed goods in order to decrease the need for travel and promote healthier communities.	**Consistent** The project proposes a take-out grocery store that places locally generated and commonly used consumer goods and services in close proximity to nearby residential and commercial uses.
LUP-5: Distributed Services. Encourage the wider distribution of commonly used facilities and services in order to reduce the need for or length of vehicular trips to and from places of work and residence.	**Consistent** Refer to LUP-3 Response.
Optimize Vehicular Travel	
OVT-3: Circulation Efficiency. Improve the flow and efficiency of vehicular traffic throughout the city to avoid idling and reduce fuel consumption.	**Consistent** The project is designed to efficiently circulate traffic through the site by scheduling a maximum of approximately 40 pick-ups during the peak hours and requiring each vehicle to turn their engine off instead of idling in the waiting area at all times.

As demonstrated in Table 9, the project is consistent with applicable measures from the City's 2014 CAP. Therefore, this impact would be less than significant **[Checklist Items 1 and 2]**.

Mitigation Measures. Mitigation is not required because this impact would be less than significant.

Cumulative Impacts. GHG and climate change are by definition cumulative impacts, as they affect the accumulation of greenhouse gases in the atmosphere. As indicated above in Impact GHG-1, emissions associated with the project would not contribute significantly to climate change, and the project's impacts are therefore less than cumulatively considerable.

5.0 REFERENCES

Association of Environmental Professionals. *California Environmental Quality Act (CEQA) Statute and Guidelines.* 2012

Bay Area Air Quality Management District (BAAQMD). July 1, 2015. 2014 Air Monitoring Network Plan. Available at: http://www.baaqmd.gov/~/media/files/technical-services/2014_network_plan.pdf?la=en

Bay Area Air Quality Management District (BAAQMD). January 4, 2006. Bay Area 2005 Ozone Strategy. Available at: http://hank.baaqmd.gov/pln/plans/ozone/2005_strategy/adoptedfinal_vol2.pdf

Bay Area Air Quality Management District (BAAQMD). September 15, 2010. Bay Area 2010 Clean Air Plan. Available at: http://www.baaqmd.gov/~/media/files/planning-and-research/plans/2010-clean-air-plan/cap-volume-i-appendices.pdf?la=en

Bay Area Air Quality Management District (BAAQMD). May 2011. CEQA Air Quality Guidelines. Available at: http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CEQA/BAAQMD%20CEQA%20Guidelines_May%202011_5_3_11.ashx

Bay Area Air Quality Management District (BAAQMD). April 2015. *Air Quality Standards and Attainment Status* Available online at: http://www.baaqmd.gov/research-and-data/air-quality-standards-and-attainment-status

Bay Area Air Quality Management District (BAAQMD). December 2005. Bay Area 2005 Ozone Strategy.

Bay Area Air Quality Management District (BAAQMD). December 2010b. 2010 Clean Air Plan.

Bay Area Air Quality Management District (BAAQMD). October 2009. Revised Draft Options and Justification Report. Available at: http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/revised-draft-ceqa-thresholds-justification-report-oct-2009.pdf?la=en

Bay Area Air Quality Management District (BAAQMD). Community Air Risk Evaluation (CARE) Program website, 2013 Impacted Communities Map. Accessed December 18, 2015. Available at: http://www.baaqmd.gov/research-and-data/interactive-data-maps

Bay Area Air Quality Management District (BAAQMD). Updated CEQA Guidelines website. Updated January 16, 2014. Available at: http://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines

California Air Resources Board. *Ambient Air Quality Standards.* Updated June 4, 2013. http://www.arb.ca.gov/research/aaqs/aaqs2.pdf

California Air Resources Board. *Air Quality and Land Use Handbook: A Community Health Perspective*. April 2005.

California Air Resources Board. 2011, 2012, & 2013 Annual Air Quality Data Summaries. http://www.arb.ca.gov/adam/topfour/topfour1.php

California Air Resources Board. *Quality Assurance Air Monitoring Sites by County*. Updated February 14, 2013. http://www.arb.ca.gov/qaweb/basinselect.php?b_airs_code=02

California Air Resources Board. June 2015. *Greenhouse Gas Inventory Data – 2000 to 2013*. Available online at: http://www.arb.ca.gov/cc/inventory/data/data.htm

California Air Resources Board. May 2015. *Greenhouse Gas Inventory Data – 2020 Business-as-Usual (BAU) Emissions Projections*. Available online at: http://arb.ca.gov/cc/inventory/data/bau.htm

California Environmental Protection Agency (CalEPA). *Climate Action Team Biennial Report*. Final Report. April 2010. Available online at: http://www.energy.ca.gov/2010publications/CAT-1000-2010-004/CAT-1000-2010-004.PDF

California Environmental Protection Agency [CalEPA], March 2006. *Climate Action Team Report to Governor Schwarzenegger and the Legislature*. http://www.climatechange.ca.gov/climate_action_team/reports/2006-04-03_FINAL_CAT_REPORT_EXECSUMMARY.PDF

California Natural Resources Agency. December 2009. *2009 California Climate Adaption Strategy*. Available online at: http://www.energy.ca.gov/2010publications/CNRA-1000-2010-010/CNRA-1000-2010-010.PDF

Intergovernmental Panel on Climate Change [IPCC]. *Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories*. [Kroeze, C.; Mosier, A.; Nevison, C.; Oenema, O.; Seitzinger, S.; Cleemput, O. van; Conrad, R.; Mitra, A.P.; H.U., Neue; Sass, R.]. Paris: OECD, 1997.

Intergovernmental Panel on Climate Change [IPCC], 2007: Summary for Policymakers. In: *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor and H.L. Miller (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

Intergovernmental Panel on Climate Change [IPCC], 2014: Summary for Policymakers. In: Climate Change 2014, Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Edenhofer, O., R. Pichs-Madruga, Y. Sokona, E. Farahani, S. Kadner, K. Seyboth, A. Adler, I. Baum, S. Brunner, P. Eickemeier, B. Kriemann, J. Savolainen, S. Schlömer, C. von Stechow, T. Zwickel and J.C. Minx (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

Kimley Horn. January 2016. *Final Transportation Operations Analysis*.

Life Science!, Inc. March 2004. *South Bay Salt Ponds Initial Stewardship Plan Final EIR*. Available at: http://www.southbayrestoration.org/pdf_files/Init%20Stewardship%20EIR-EIS/Final%20C1%20to%20C5.pdf

Parmesan, C. 2006. Ecological and Evolutionary Responses to Recent Climate Change.

Parmesan C, Galbraith H. 2004. Observed Ecological Impacts of Climate Change in North America. Arlington, VA: Pew Cent. Global Climate Change

Sunnyvale, City of. March 2013. Zoning Maps. Available at: http://sunnyvale.ca.gov/Departments/CommunityDevelopment/MapsandData.aspx

Sunnyvale, City of. May 2014. Climate Action Plan. Available at: http://www.pmcworld.com/client/sunnyvale/documents/final-ClimateActionPlan.pdf

United Nations (n.d.) *Gateway to the United Nations Systems Work on Climate Change: Durban conference delivers breakthrough in international community's response to climate change***.** Available online at: http://www.un.org/wcm/content/site/climatechange/pages/gateway/the-negotiations/durban

United Nations Framework Convention on Climate Change (UNFCCC). August 2007. *United Nations Framework Convention on Climate Change.* Available online at: http://unfccc.int/files/essential_background/convention/status_of_ratification/application/pdf/unfccc_conv_rat.pdf

United Nations Framework Convention on Climate Change (UNFCC). November 2011. *Outcome of the work of the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol at its sixteenth session.* Available online at: http://unfccc.int/files/meetings/durban_nov_2011/decisions/application/pdf/awgkp_outcome.pdf

United Nations Framework Convention on Climate Change (UNFCC). March 15, 2012. *Report of the Conference of the Parties on its seventeenth session, held in Durban from 28 November to 11 December 2011*. Available online at http://unfccc.int/resource/docs/2011/cop17/eng/09a01.pdf

United States Department of Energy, Energy Information Administration. *Annual Energy Review 2009*. August 2010. Available online at: http://www.eia.gov/aer/envir.html.

United States Environmental Protection Agency (U.S. EPA). Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2014. U. S. EPA #430-R-16-002. February 2016. Available: http://www.epa.gov/climatechange/emissions/usinventoryreport.html

U.S. EPA. Policy Assessment for the Review of the Lead National Ambient Air Quality Standard. U. S. EPA #452/P-12-001. January 2013. Available: https://www3.epa.gov/ttn/naaqs/standards/pb/data/010913_pb-draft-pa.pdf

World Meteorological Organization. March 2013. A summary of current and climate change findings and figures.

Appendix

CalEEMod version 2013.2.2
Summer, Winter, and Annual Results

Existing Home Improvement Superstore

San Francisco Bay Area Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Home Improvement Superstore	55.10	1000sqft	1.60	55,104.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2014
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - proj site appx 1.6 acre based on site plans

Vehicle Trips - client provided trip gen

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	55,100.00	55,104.00
tblLandUse	LotAcreage	1.26	1.60
tblVehicleTrips	ST_TR	56.72	30.74
tblVehicleTrips	SU_TR	55.80	30.74
tblVehicleTrips	WD_TR	29.80	30.74

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	0.9921	2.4028	1.9583	3.0000e-003	0.0399	0.1479	0.1878	0.0146	0.1419	0.1565	0.0000	253.7119	253.7119	0.0486	0.0000	254.7332
Total	**0.9921**	**2.4028**	**1.9583**	**3.0000e-003**	**0.0399**	**0.1479**	**0.1878**	**0.0146**	**0.1419**	**0.1565**	**0.0000**	**253.7119**	**253.7119**	**0.0486**	**0.0000**	**254.7332**

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	0.9921	2.4028	1.9583	3.0000e-003	0.0399	0.1479	0.1878	0.0146	0.1419	0.1565	0.0000	253.7116	253.7116	0.0486	0.0000	254.7329
Total	**0.9921**	**2.4028**	**1.9583**	**3.0000e-003**	**0.0399**	**0.1479**	**0.1878**	**0.0146**	**0.1419**	**0.1565**	**0.0000**	**253.7116**	**253.7116**	**0.0486**	**0.0000**	**254.7329**

	ROG	NOx	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**

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	0.2791	1.0000e-005	5.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.8000e-004	9.8000e-004	0.0000	0.0000	1.0500e-003
Energy	7.4000e-004	6.7300e-003	5.6500e-003	4.0000e-005		5.1000e-004	5.1000e-004		5.1000e-004	5.1000e-004	0.0000	194.7172	194.7172	8.6100e-003	1.8900e-003	195.4832
Mobile	1.1123	1.7456	8.8438	0.0101	0.6740	0.0231	0.6971	0.1809	0.0212	0.2020	0.0000	841.2428	841.2428	0.0472	0.0000	842.2332
Waste						0.0000	0.0000		0.0000	0.0000	124.0295	0.0000	124.0295	7.3299	0.0000	277.9581
Water						0.0000	0.0000		0.0000	0.0000	1.2948	8.9716	10.2665	0.1334	3.2200e-003	14.0673
Total	**1.3921**	**1.7524**	**8.8500**	**0.0101**	**0.6740**	**0.0236**	**0.6976**	**0.1809**	**0.0217**	**0.2025**	**125.3244**	**1,044.9326**	**1,170.2569**	**7.5191**	**5.1100e-003**	**1,329.7429**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2791	1.0000e-005	5.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.8000e-004	9.8000e-004	0.0000	0.0000	1.0500e-003
Energy	7.4000e-004	6.7300e-003	5.6500e-003	4.0000e-005		5.1000e-004	5.1000e-004		5.1000e-004	5.1000e-004	0.0000	194.7172	194.7172	8.6100e-003	1.8900e-003	195.4832
Mobile	1.1123	1.7456	8.8438	0.0101	0.6740	0.0231	0.6971	0.1809	0.0212	0.2020	0.0000	841.2428	841.2428	0.0472	0.0000	842.2332
Waste						0.0000	0.0000		0.0000	0.0000	124.0295	0.0000	124.0295	7.3299	0.0000	277.9581
Water						0.0000	0.0000		0.0000	0.0000	1.2948	8.9716	10.2665	0.1334	3.2200e-003	14.0652
Total	**1.3921**	**1.7524**	**8.8500**	**0.0101**	**0.6740**	**0.0236**	**0.6976**	**0.1809**	**0.0217**	**0.2025**	**125.3244**	**1,044.9326**	**1,170.2569**	**7.5191**	**5.1100e-003**	**1,329.7408**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2017	1/27/2017	5	20	
2	Site Preparation	Site Preparation	1/28/2017	1/31/2017	5	2	
3	Grading	Grading	2/1/2017	2/6/2017	5	4	
4	Building Construction	Building Construction	2/7/2017	11/13/2017	5	200	
5	Paving	Paving	11/14/2017	11/27/2017	5	10	
6	Architectural Coating	Architectural Coating	11/28/2017	12/11/2017	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 82,656; Non-Residential Outdoor: 27,552 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	174	0.41
Grading	Rubber Tired Dozers	1	6.00	255	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	226	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	125	0.42
Paving	Paving Equipment	1	8.00	130	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	18.00	9.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	4.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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					
Off-Road	0.0272	0.2659	0.2087	2.4000e-004		0.0161	0.0161		0.0150	0.0150	0.0000	22.2938	22.2938	5.6600e-003	0.0000	22.4126
Total	**0.0272**	**0.2659**	**0.2087**	**2.4000e-004**		**0.0161**	**0.0161**		**0.0150**	**0.0150**	**0.0000**	**22.2938**	**22.2938**	**5.6600e-003**	**0.0000**	**22.4126**

3.2 Demolition - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	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	4.4000e-004	6.4000e-004	6.1500e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	1.0294	1.0294	5.0000e-005	0.0000	1.0305
Total	**4.4000e-004**	**6.4000e-004**	**6.1500e-003**	**1.0000e-005**	**1.1800e-003**	**1.0000e-005**	**1.1900e-003**	**3.1000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.0294**	**1.0294**	**5.0000e-005**	**0.0000**	**1.0305**

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	0.0272	0.2659	0.2087	2.4000e-004		0.0161	0.0161		0.0150	0.0150	0.0000	22.2938	22.2938	5.6600e-003	0.0000	22.4125
Total	**0.0272**	**0.2659**	**0.2087**	**2.4000e-004**		**0.0161**	**0.0161**		**0.0150**	**0.0150**	**0.0000**	**22.2938**	**22.2938**	**5.6600e-003**	**0.0000**	**22.4125**

3.2 Demolition - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	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	4.4000e-004	6.4000e-004	6.1500e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	1.0294	1.0294	5.0000e-005	0.0000	1.0305
Total	**4.4000e-004**	**6.4000e-004**	**6.1500e-003**	**1.0000e-005**	**1.1800e-003**	**1.0000e-005**	**1.1900e-003**	**3.1000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.0294**	**1.0294**	**5.0000e-005**	**0.0000**	**1.0305**

3.3 Site Preparation - 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					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3100e-003	0.0242	0.0159	2.0000e-005		1.3100e-003	1.3100e-003		1.2000e-003	1.2000e-003	0.0000	1.5895	1.5895	4.9000e-004	0.0000	1.5997
Total	**2.3100e-003**	**0.0242**	**0.0159**	**2.0000e-005**	**5.8000e-003**	**1.3100e-003**	**7.1100e-003**	**2.9500e-003**	**1.2000e-003**	**4.1500e-003**	**0.0000**	**1.5895**	**1.5895**	**4.9000e-004**	**0.0000**	**1.5997**

3.3 Site Preparation - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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-005	4.0000e-005	3.8000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0634	0.0634	0.0000	0.0000	0.0634
Total	**3.0000e-005**	**4.0000e-005**	**3.8000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0634**	**0.0634**	**0.0000**	**0.0000**	**0.0634**

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					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3100e-003	0.0242	0.0159	2.0000e-005		1.3100e-003	1.3100e-003		1.2000e-003	1.2000e-003	0.0000	1.5895	1.5895	4.9000e-004	0.0000	1.5997
Total	**2.3100e-003**	**0.0242**	**0.0159**	**2.0000e-005**	**5.8000e-003**	**1.3100e-003**	**7.1100e-003**	**2.9500e-003**	**1.2000e-003**	**4.1500e-003**	**0.0000**	**1.5895**	**1.5895**	**4.9000e-004**	**0.0000**	**1.5997**

3.3 Site Preparation - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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-005	4.0000e-005	3.8000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0634	0.0634	0.0000	0.0000	0.0634
Total	**3.0000e-005**	**4.0000e-005**	**3.8000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0634**	**0.0634**	**0.0000**	**0.0000**	**0.0634**

3.4 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					9.8300e-003	0.0000	9.8300e-003	5.0500e-003	0.0000	5.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.7700e-003	0.0396	0.0264	3.0000e-005		2.1300e-003	2.1300e-003		1.9600e-003	1.9600e-003	0.0000	2.6112	2.6112	8.0000e-004	0.0000	2.6280
Total	**3.7700e-003**	**0.0396**	**0.0264**	**3.0000e-005**	**9.8300e-003**	**2.1300e-003**	**0.0120**	**5.0500e-003**	**1.9600e-003**	**7.0100e-003**	**0.0000**	**2.6112**	**2.6112**	**8.0000e-004**	**0.0000**	**2.6280**

3.4 Grading - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	8.0000e-005	7.6000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1267	0.1267	1.0000e-005	0.0000	0.1268
Total	**5.0000e-005**	**8.0000e-005**	**7.6000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1267**	**0.1267**	**1.0000e-005**	**0.0000**	**0.1268**

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					9.8300e-003	0.0000	9.8300e-003	5.0500e-003	0.0000	5.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.7700e-003	0.0396	0.0264	3.0000e-005		2.1300e-003	2.1300e-003		1.9600e-003	1.9600e-003	0.0000	2.6112	2.6112	8.0000e-004	0.0000	2.6280
Total	**3.7700e-003**	**0.0396**	**0.0264**	**3.0000e-005**	**9.8300e-003**	**2.1300e-003**	**0.0120**	**5.0500e-003**	**1.9600e-003**	**7.0100e-003**	**0.0000**	**2.6112**	**2.6112**	**8.0000e-004**	**0.0000**	**2.6280**

3.4 Grading - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	8.0000e-005	7.6000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1267	0.1267	1.0000e-005	0.0000	0.1268
Total	**5.0000e-005**	**8.0000e-005**	**7.6000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1267**	**0.1267**	**1.0000e-005**	**0.0000**	**0.1268**

3.5 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	0.2955	1.9109	1.4311	2.2000e-003		0.1226	0.1226		0.1182	0.1182	0.0000	184.5473	184.5473	0.0387	0.0000	185.3605
Total	**0.2955**	**1.9109**	**1.4311**	**2.2000e-003**		**0.1226**	**0.1226**		**0.1182**	**0.1182**	**0.0000**	**184.5473**	**184.5473**	**0.0387**	**0.0000**	**185.3605**

3.5 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0104	0.0808	0.1251	2.1000e-004	5.7900e-003	1.1600e-003	6.9600e-003	1.6600e-003	1.0700e-003	2.7300e-003	0.0000	19.1349	19.1349	1.5000e-004	0.0000	19.1380
Worker	6.0600e-003	8.8500e-003	0.0852	1.9000e-004	0.0163	1.3000e-004	0.0165	4.3400e-003	1.2000e-004	4.4600e-003	0.0000	14.2532	14.2532	7.5000e-004	0.0000	14.2689
Total	**0.0164**	**0.0897**	**0.2104**	**4.0000e-004**	**0.0221**	**1.2900e-003**	**0.0234**	**6.0000e-003**	**1.1900e-003**	**7.1900e-003**	**0.0000**	**33.3881**	**33.3881**	**9.0000e-004**	**0.0000**	**33.4068**

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	0.2955	1.9109	1.4311	2.2000e-003		0.1226	0.1226		0.1182	0.1182	0.0000	184.5471	184.5471	0.0387	0.0000	185.3603
Total	**0.2955**	**1.9109**	**1.4311**	**2.2000e-003**		**0.1226**	**0.1226**		**0.1182**	**0.1182**	**0.0000**	**184.5471**	**184.5471**	**0.0387**	**0.0000**	**185.3603**

3.5 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0104	0.0808	0.1251	2.1000e-004	5.7900e-003	1.1600e-003	6.9600e-003	1.6600e-003	1.0700e-003	2.7300e-003	0.0000	19.1349	19.1349	1.5000e-004	0.0000	19.1380
Worker	6.0600e-003	8.8500e-003	0.0852	1.9000e-004	0.0163	1.3000e-004	0.0165	4.3400e-003	1.2000e-004	4.4600e-003	0.0000	14.2532	14.2532	7.5000e-004	0.0000	14.2689
Total	**0.0164**	**0.0897**	**0.2104**	**4.0000e-004**	**0.0221**	**1.2900e-003**	**0.0234**	**6.0000e-003**	**1.1900e-003**	**7.1900e-003**	**0.0000**	**33.3881**	**33.3881**	**9.0000e-004**	**0.0000**	**33.4068**

3.6 Paving - 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	5.9300e-003	0.0605	0.0452	7.0000e-005		3.6700e-003	3.6700e-003		3.3800e-003	3.3800e-003	0.0000	6.1129	6.1129	1.8400e-003	0.0000	6.1515
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.9300e-003**	**0.0605**	**0.0452**	**7.0000e-005**		**3.6700e-003**	**3.6700e-003**		**3.3800e-003**	**3.3800e-003**	**0.0000**	**6.1129**	**6.1129**	**1.8400e-003**	**0.0000**	**6.1515**

3.6 Paving - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	2.2000e-004	3.2000e-004	3.0800e-003	1.0000e-005	5.9000e-004	0.0000	5.9000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5147	0.5147	3.0000e-005	0.0000	0.5153
Total	**2.2000e-004**	**3.2000e-004**	**3.0800e-003**	**1.0000e-005**	**5.9000e-004**	**0.0000**	**5.9000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.5147**	**0.5147**	**3.0000e-005**	**0.0000**	**0.5153**

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	5.9300e-003	0.0605	0.0452	7.0000e-005		3.6700e-003	3.6700e-003		3.3800e-003	3.3800e-003	0.0000	6.1129	6.1129	1.8400e-003	0.0000	6.1515
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.9300e-003**	**0.0605**	**0.0452**	**7.0000e-005**		**3.6700e-003**	**3.6700e-003**		**3.3800e-003**	**3.3800e-003**	**0.0000**	**6.1129**	**6.1129**	**1.8400e-003**	**0.0000**	**6.1515**

3.6 Paving - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	2.2000e-004	3.2000e-004	3.0800e-003	1.0000e-005	5.9000e-004	0.0000	5.9000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5147	0.5147	3.0000e-005	0.0000	0.5153
Total	**2.2000e-004**	**3.2000e-004**	**3.0800e-003**	**1.0000e-005**	**5.9000e-004**	**0.0000**	**5.9000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.5147**	**0.5147**	**3.0000e-005**	**0.0000**	**0.5153**

3.7 Architectural Coating - 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					
Archit. Coating	0.6385					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6600e-003	0.0109	9.3400e-003	1.0000e-005		8.7000e-004	8.7000e-004		8.7000e-004	8.7000e-004	0.0000	1.2766	1.2766	1.3000e-004	0.0000	1.2795
Total	**0.6402**	**0.0109**	**9.3400e-003**	**1.0000e-005**		**8.7000e-004**	**8.7000e-004**		**8.7000e-004**	**8.7000e-004**	**0.0000**	**1.2766**	**1.2766**	**1.3000e-004**	**0.0000**	**1.2795**

3.7 Architectural Coating - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	7.0000e-005	1.0000e-004	9.5000e-004	0.0000	1.8000e-004	0.0000	1.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1584	0.1584	1.0000e-005	0.0000	0.1585
Total	**7.0000e-005**	**1.0000e-004**	**9.5000e-004**	**0.0000**	**1.8000e-004**	**0.0000**	**1.8000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1584**	**0.1584**	**1.0000e-005**	**0.0000**	**0.1585**

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	0.6385					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6600e-003	0.0109	9.3400e-003	1.0000e-005		8.7000e-004	8.7000e-004		8.7000e-004	8.7000e-004	0.0000	1.2766	1.2766	1.3000e-004	0.0000	1.2795
Total	**0.6402**	**0.0109**	**9.3400e-003**	**1.0000e-005**		**8.7000e-004**	**8.7000e-004**		**8.7000e-004**	**8.7000e-004**	**0.0000**	**1.2766**	**1.2766**	**1.3000e-004**	**0.0000**	**1.2795**

3.7 Architectural Coating - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	7.0000e-005	1.0000e-004	9.5000e-004	0.0000	1.8000e-004	0.0000	1.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1584	0.1584	1.0000e-005	0.0000	0.1585
Total	**7.0000e-005**	**1.0000e-004**	**9.5000e-004**	**0.0000**	**1.8000e-004**	**0.0000**	**1.8000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1584**	**0.1584**	**1.0000e-005**	**0.0000**	**0.1585**

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	1.1123	1.7456	8.8438	0.0101	0.6740	0.0231	0.6971	0.1809	0.0212	0.2020	0.0000	841.2428	841.2428	0.0472	0.0000	842.2332
Unmitigated	1.1123	1.7456	8.8438	0.0101	0.6740	0.0231	0.6971	0.1809	0.0212	0.2020	0.0000	841.2428	841.2428	0.0472	0.0000	842.2332

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Home Improvement Superstore	1,693.77	1,693.77	1693.77	1,812,286	1,812,286
Total	1,693.77	1,693.77	1,693.77	1,812,286	1,812,286

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
Home Improvement Superstore	9.50	7.30	7.30	23.40	57.60	19.00	32	20	48

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.546249	0.062948	0.174600	0.125189	0.034587	0.004960	0.015036	0.022157	0.002053	0.003311	0.006538	0.000702	0.001670

4.4 Fleet Mix

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	187.3952	187.3952	8.4700e-003	1.7500e-003	188.1166
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	187.3952	187.3952	8.4700e-003	1.7500e-003	188.1166
NaturalGas Mitigated	7.4000e-004	6.7300e-003	5.6500e-003	4.0000e-005		5.1000e-004	5.1000e-004		5.1000e-004	5.1000e-004	0.0000	7.3220	7.3220	1.4000e-004	1.3000e-004	7.3666
NaturalGas Unmitigated	7.4000e-004	6.7300e-003	5.6500e-003	4.0000e-005		5.1000e-004	5.1000e-004		5.1000e-004	5.1000e-004	0.0000	7.3220	7.3220	1.4000e-004	1.3000e-004	7.3666

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					
Home Improvement Superstore	137209	7.4000e-004	6.7300e-003	5.6500e-003	4.0000e-005		5.1000e-004	5.1000e-004		5.1000e-004	5.1000e-004	0.0000	7.3220	7.3220	1.4000e-004	1.3000e-004	7.3666
Total		**7.4000e-004**	**6.7300e-003**	**5.6500e-003**	**4.0000e-005**		**5.1000e-004**	**5.1000e-004**		**5.1000e-004**	**5.1000e-004**	**0.0000**	**7.3220**	**7.3220**	**1.4000e-004**	**1.3000e-004**	**7.3666**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Home Improvement Superstore	137209	7.4000e-004	6.7300e-003	5.6500e-003	4.0000e-005		5.1000e-004	5.1000e-004		5.1000e-004	5.1000e-004	0.0000	7.3220	7.3220	1.4000e-004	1.3000e-004	7.3666
Total		**7.4000e-004**	**6.7300e-003**	**5.6500e-003**	**4.0000e-005**		**5.1000e-004**	**5.1000e-004**		**5.1000e-004**	**5.1000e-004**	**0.0000**	**7.3220**	**7.3220**	**1.4000e-004**	**1.3000e-004**	**7.3666**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Home Improvement Superstore	644166	187.3952	8.4700e-003	1.7500e-003	188.1166
Total		**187.3952**	**8.4700e-003**	**1.7500e-003**	**188.1166**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Home Improvement Superstore	644166	187.3952	8.4700e-003	1.7500e-003	188.1166
Total		**187.3952**	**8.4700e-003**	**1.7500e-003**	**188.1166**

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	0.2791	1.0000e-005	5.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.8000e-004	9.8000e-004	0.0000	0.0000	1.0500e-003
Unmitigated	0.2791	1.0000e-005	5.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.8000e-004	9.8000e-004	0.0000	0.0000	1.0500e-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	0.0639					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2152					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	1.0000e-005	5.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.8000e-004	9.8000e-004	0.0000	0.0000	1.0500e-003
Total	**0.2791**	**1.0000e-005**	**5.3000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**9.8000e-004**	**9.8000e-004**	**0.0000**	**0.0000**	**1.0500e-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	0.0639					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2152					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	1.0000e-005	5.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.8000e-004	9.8000e-004	0.0000	0.0000	1.0500e-003
Total	**0.2791**	**1.0000e-005**	**5.3000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**9.8000e-004**	**9.8000e-004**	**0.0000**	**0.0000**	**1.0500e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	10.2665	0.1334	3.2200e-003	14.0652
Unmitigated	10.2665	0.1334	3.2200e-003	14.0673

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Home Improvement Superstore	4.0814 / 2.5015	10.2665	0.1334	3.2200e-003	14.0673
Total		**10.2665**	**0.1334**	**3.2200e-003**	**14.0673**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Home Improvement Superstore	4.0814 / 2.5015	10.2665	0.1334	3.2200e-003	14.0652
Total		**10.2665**	**0.1334**	**3.2200e-003**	**14.0652**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	124.0295	7.3299	0.0000	277.9581
Unmitigated	124.0295	7.3299	0.0000	277.9581

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Home Improvement Superstore	611.01	124.0295	7.3299	0.0000	277.9581
Total		**124.0295**	**7.3299**	**0.0000**	**277.9581**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Home Improvement Superstore	611.01	124.0295	7.3299	0.0000	277.9581
Total		**124.0295**	**7.3299**	**0.0000**	**277.9581**

9.0 Operational Offroad

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

10.0 Vegetation

Existing Home Improvement Superstore

San Francisco Bay Area Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Home Improvement Superstore	55.10	1000sqft	1.60	55,104.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2014
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - proj site appx 1.6 acre based on site plans

Vehicle Trips - client provided trip gen

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	55,100.00	55,104.00
tblLandUse	LotAcreage	1.26	1.60
tblVehicleTrips	ST_TR	56.72	30.74
tblVehicleTrips	SU_TR	55.80	30.74
tblVehicleTrips	WD_TR	29.80	30.74

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	128.0503	26.6420	21.5308	0.0262	5.8750	1.6071	7.1823	2.9737	1.5031	4.1764	0.0000	2,579.3699	2,579.3699	0.6295	0.0000	2,592.5883
Total	**128.0503**	**26.6420**	**21.5308**	**0.0262**	**5.8750**	**1.6071**	**7.1823**	**2.9737**	**1.5031**	**4.1764**	**0.0000**	**2,579.3699**	**2,579.3699**	**0.6295**	**0.0000**	**2,592.5883**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	128.0503	26.6420	21.5308	0.0262	5.8750	1.6071	7.1823	2.9737	1.5031	4.1764	0.0000	2,579.3699	2,579.3699	0.6295	0.0000	2,592.5883
Total	**128.0503**	**26.6420**	**21.5308**	**0.0262**	**5.8750**	**1.6071**	**7.1823**	**2.9737**	**1.5031**	**4.1764**	**0.0000**	**2,579.3699**	**2,579.3699**	**0.6295**	**0.0000**	**2,592.5883**

	ROG	NOx	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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.5297	6.0000e-005	5.8800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0121	0.0121	4.0000e-005		0.0128
Energy	4.0500e-003	0.0369	0.0310	2.2000e-004		2.8000e-003	2.8000e-003		2.8000e-003	2.8000e-003		44.2253	44.2253	8.5000e-004	8.1000e-004	44.4944
Mobile	6.2356	9.0093	43.7281	0.0584	3.8474	0.1260	3.9734	1.0291	0.1155	1.1447		5,382.3583	5,382.3583	0.2858		5,388.3610
Total	**7.7694**	**9.0462**	**43.7649**	**0.0586**	**3.8474**	**0.1288**	**3.9763**	**1.0291**	**0.1183**	**1.1475**		**5,426.5956**	**5,426.5956**	**0.2867**	**8.1000e-004**	**5,432.8682**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.5297	6.0000e-005	5.8800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0121	0.0121	4.0000e-005		0.0128
Energy	4.0500e-003	0.0369	0.0310	2.2000e-004		2.8000e-003	2.8000e-003		2.8000e-003	2.8000e-003		44.2253	44.2253	8.5000e-004	8.1000e-004	44.4944
Mobile	6.2356	9.0093	43.7281	0.0584	3.8474	0.1260	3.9734	1.0291	0.1155	1.1447		5,382.3583	5,382.3583	0.2858		5,388.3610
Total	**7.7694**	**9.0462**	**43.7649**	**0.0586**	**3.8474**	**0.1288**	**3.9763**	**1.0291**	**0.1183**	**1.1475**		**5,426.5956**	**5,426.5956**	**0.2867**	**8.1000e-004**	**5,432.8682**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2017	1/27/2017	5	20	
2	Site Preparation	Site Preparation	1/28/2017	1/31/2017	5	2	
3	Grading	Grading	2/1/2017	2/6/2017	5	4	
4	Building Construction	Building Construction	2/7/2017	11/13/2017	5	200	
5	Paving	Paving	11/14/2017	11/27/2017	5	10	
6	Architectural Coating	Architectural Coating	11/28/2017	12/11/2017	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 82,656; Non-Residential Outdoor: 27,552 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	174	0.41
Grading	Rubber Tired Dozers	1	6.00	255	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	226	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	125	0.42
Paving	Paving Equipment	1	8.00	130	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	18.00	9.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	4.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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	lb/day										lb/day					
Off-Road	2.7216	26.5855	20.8712	0.0245		1.6062	1.6062		1.5022	1.5022		2,457.4682	2,457.4682	0.6235		2,470.5620
Total	**2.7216**	**26.5855**	**20.8712**	**0.0245**		**1.6062**	**1.6062**		**1.5022**	**1.5022**		**2,457.4682**	**2,457.4682**	**0.6235**		**2,470.5620**

3.2 Demolition - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0471	0.0565	0.6596	1.5100e-003	0.1226	9.4000e-004	0.1235	0.0325	8.7000e-004	0.0334		121.9017	121.9017	5.9400e-003		122.0263
Total	**0.0471**	**0.0565**	**0.6596**	**1.5100e-003**	**0.1226**	**9.4000e-004**	**0.1235**	**0.0325**	**8.7000e-004**	**0.0334**		**121.9017**	**121.9017**	**5.9400e-003**		**122.0263**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.7216	26.5855	20.8712	0.0245		1.6062	1.6062		1.5022	1.5022	0.0000	2,457.4682	2,457.4682	0.6235		2,470.5620
Total	**2.7216**	**26.5855**	**20.8712**	**0.0245**		**1.6062**	**1.6062**		**1.5022**	**1.5022**	**0.0000**	**2,457.4682**	**2,457.4682**	**0.6235**		**2,470.5620**

3.2 Demolition - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0471	0.0565	0.6596	1.5100e-003	0.1226	9.4000e-004	0.1235	0.0325	8.7000e-004	0.0334		121.9017	121.9017	5.9400e-003		122.0263
Total	**0.0471**	**0.0565**	**0.6596**	**1.5100e-003**	**0.1226**	**9.4000e-004**	**0.1235**	**0.0325**	**8.7000e-004**	**0.0334**		**121.9017**	**121.9017**	**5.9400e-003**		**122.0263**

3.3 Site Preparation - 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	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	2.3109	24.2288	15.9299	0.0171		1.3067	1.3067		1.2022	1.2022		1,752.1239	1,752.1239	0.5369		1,763.3977
Total	**2.3109**	**24.2288**	**15.9299**	**0.0171**	**5.7996**	**1.3067**	**7.1063**	**2.9537**	**1.2022**	**4.1559**		**1,752.1239**	**1,752.1239**	**0.5369**		**1,763.3977**

3.3 Site Preparation - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0290	0.0348	0.4059	9.3000e-004	0.0754	5.8000e-004	0.0760	0.0200	5.3000e-004	0.0205		75.0164	75.0164	3.6500e-003		75.0931
Total	**0.0290**	**0.0348**	**0.4059**	**9.3000e-004**	**0.0754**	**5.8000e-004**	**0.0760**	**0.0200**	**5.3000e-004**	**0.0205**		**75.0164**	**75.0164**	**3.6500e-003**		**75.0931**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	2.3109	24.2288	15.9299	0.0171		1.3067	1.3067		1.2022	1.2022	0.0000	1,752.1239	1,752.1239	0.5369		1,763.3977
Total	**2.3109**	**24.2288**	**15.9299**	**0.0171**	**5.7996**	**1.3067**	**7.1063**	**2.9537**	**1.2022**	**4.1559**	**0.0000**	**1,752.1239**	**1,752.1239**	**0.5369**		**1,763.3977**

3.3 Site Preparation - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0290	0.0348	0.4059	9.3000e-004	0.0754	5.8000e-004	0.0760	0.0200	5.3000e-004	0.0205		75.0164	75.0164	3.6500e-003		75.0931
Total	**0.0290**	**0.0348**	**0.4059**	**9.3000e-004**	**0.0754**	**5.8000e-004**	**0.0760**	**0.0200**	**5.3000e-004**	**0.0205**		**75.0164**	**75.0164**	**3.6500e-003**		**75.0931**

3.4 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	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.8844	19.7889	13.1786	0.0141		1.0661	1.0661		0.9808	0.9808		1,439.1894	1,439.1894	0.4410		1,448.4496
Total	**1.8844**	**19.7889**	**13.1786**	**0.0141**	**4.9143**	**1.0661**	**5.9804**	**2.5256**	**0.9808**	**3.5064**		**1,439.1894**	**1,439.1894**	**0.4410**		**1,448.4496**

3.4 Grading - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0290	0.0348	0.4059	9.3000e-004	0.0754	5.8000e-004	0.0760	0.0200	5.3000e-004	0.0205		75.0164	75.0164	3.6500e-003		75.0931
Total	**0.0290**	**0.0348**	**0.4059**	**9.3000e-004**	**0.0754**	**5.8000e-004**	**0.0760**	**0.0200**	**5.3000e-004**	**0.0205**		**75.0164**	**75.0164**	**3.6500e-003**		**75.0931**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.8844	19.7889	13.1786	0.0141		1.0661	1.0661		0.9808	0.9808	0.0000	1,439.1894	1,439.1894	0.4410		1,448.4496
Total	**1.8844**	**19.7889**	**13.1786**	**0.0141**	**4.9143**	**1.0661**	**5.9804**	**2.5256**	**0.9808**	**3.5064**	**0.0000**	**1,439.1894**	**1,439.1894**	**0.4410**		**1,448.4496**

3.4 Grading - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0290	0.0348	0.4059	9.3000e-004	0.0754	5.8000e-004	0.0760	0.0200	5.3000e-004	0.0205		75.0164	75.0164	3.6500e-003		75.0931
Total	**0.0290**	**0.0348**	**0.4059**	**9.3000e-004**	**0.0754**	**5.8000e-004**	**0.0760**	**0.0200**	**5.3000e-004**	**0.0205**		**75.0164**	**75.0164**	**3.6500e-003**		**75.0931**

3.5 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	lb/day										lb/day					
Off-Road	2.9546	19.1088	14.3110	0.0220		1.2257	1.2257		1.1823	1.1823		2,034.2860	2,034.2860	0.4268		2,043.2497
Total	**2.9546**	**19.1088**	**14.3110**	**0.0220**		**1.2257**	**1.2257**		**1.1823**	**1.1823**		**2,034.2860**	**2,034.2860**	**0.4268**		**2,043.2497**

3.5 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0925	0.7818	0.9639	2.1400e-003	0.0598	0.0116	0.0714	0.0171	0.0107	0.0277		211.6074	211.6074	1.6200e-003		211.6414
Worker	0.0652	0.0783	0.9133	2.0900e-003	0.1698	1.3000e-003	0.1711	0.0450	1.2000e-003	0.0462		168.7869	168.7869	8.2200e-003		168.9595
Total	**0.1577**	**0.8601**	**1.8772**	**4.2300e-003**	**0.2296**	**0.0129**	**0.2425**	**0.0621**	**0.0119**	**0.0740**		**380.3944**	**380.3944**	**9.8400e-003**		**380.6009**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9546	19.1088	14.3110	0.0220		1.2257	1.2257		1.1823	1.1823	0.0000	2,034.2860	2,034.2860	0.4268		2,043.2497
Total	**2.9546**	**19.1088**	**14.3110**	**0.0220**		**1.2257**	**1.2257**		**1.1823**	**1.1823**	**0.0000**	**2,034.2860**	**2,034.2860**	**0.4268**		**2,043.2497**

3.5 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0925	0.7818	0.9639	2.1400e-003	0.0598	0.0116	0.0714	0.0171	0.0107	0.0277		211.6074	211.6074	1.6200e-003		211.6414
Worker	0.0652	0.0783	0.9133	2.0900e-003	0.1698	1.3000e-003	0.1711	0.0450	1.2000e-003	0.0462		168.7869	168.7869	8.2200e-003		168.9595
Total	**0.1577**	**0.8601**	**1.8772**	**4.2300e-003**	**0.2296**	**0.0129**	**0.2425**	**0.0621**	**0.0119**	**0.0740**		**380.3944**	**380.3944**	**9.8400e-003**		**380.6009**

3.6 Paving - 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	lb/day										lb/day					
Off-Road	1.1857	12.0981	9.0308	0.0133		0.7333	0.7333		0.6755	0.6755		1,347.6575	1,347.6575	0.4052		1,356.1677
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1857**	**12.0981**	**9.0308**	**0.0133**		**0.7333**	**0.7333**		**0.6755**	**0.6755**		**1,347.6575**	**1,347.6575**	**0.4052**		**1,356.1677**

3.6 Paving - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0471	0.0565	0.6596	1.5100e-003	0.1226	9.4000e-004	0.1235	0.0325	8.7000e-004	0.0334		121.9017	121.9017	5.9400e-003		122.0263
Total	**0.0471**	**0.0565**	**0.6596**	**1.5100e-003**	**0.1226**	**9.4000e-004**	**0.1235**	**0.0325**	**8.7000e-004**	**0.0334**		**121.9017**	**121.9017**	**5.9400e-003**		**122.0263**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1857	12.0981	9.0308	0.0133		0.7333	0.7333		0.6755	0.6755	0.0000	1,347.6575	1,347.6575	0.4052		1,356.1677
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1857**	**12.0981**	**9.0308**	**0.0133**		**0.7333**	**0.7333**		**0.6755**	**0.6755**	**0.0000**	**1,347.6575**	**1,347.6575**	**0.4052**		**1,356.1677**

3.6 Paving - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0471	0.0565	0.6596	1.5100e-003	0.1226	9.4000e-004	0.1235	0.0325	8.7000e-004	0.0334		121.9017	121.9017	5.9400e-003		122.0263
Total	**0.0471**	**0.0565**	**0.6596**	**1.5100e-003**	**0.1226**	**9.4000e-004**	**0.1235**	**0.0325**	**8.7000e-004**	**0.0334**		**121.9017**	**121.9017**	**5.9400e-003**		**122.0263**

3.7 Architectural Coating - 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	lb/day										lb/day					
Archit. Coating	127.7035					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721
Total	**128.0358**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**		**281.4481**	**281.4481**	**0.0297**		**282.0721**

3.7 Architectural Coating - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0145	0.0174	0.2030	4.6000e-004	0.0377	2.9000e-004	0.0380	0.0100	2.7000e-004	0.0103		37.5082	37.5082	1.8300e-003		37.5466
Total	**0.0145**	**0.0174**	**0.2030**	**4.6000e-004**	**0.0377**	**2.9000e-004**	**0.0380**	**0.0100**	**2.7000e-004**	**0.0103**		**37.5082**	**37.5082**	**1.8300e-003**		**37.5466**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	127.7035					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297		282.0721
Total	**128.0358**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**	**0.0000**	**281.4481**	**281.4481**	**0.0297**		**282.0721**

3.7 Architectural Coating - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0145	0.0174	0.2030	4.6000e-004	0.0377	2.9000e-004	0.0380	0.0100	2.7000e-004	0.0103		37.5082	37.5082	1.8300e-003		37.5466
Total	**0.0145**	**0.0174**	**0.2030**	**4.6000e-004**	**0.0377**	**2.9000e-004**	**0.0380**	**0.0100**	**2.7000e-004**	**0.0103**		**37.5082**	**37.5082**	**1.8300e-003**		**37.5466**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.2356	9.0093	43.7281	0.0584	3.8474	0.1260	3.9734	1.0291	0.1155	1.1447		5,382.3583	5,382.3583	0.2858		5,388.3610
Unmitigated	6.2356	9.0093	43.7281	0.0584	3.8474	0.1260	3.9734	1.0291	0.1155	1.1447		5,382.3583	5,382.3583	0.2858		5,388.3610

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Home Improvement Superstore	1,693.77	1,693.77	1693.77	1,812,286	1,812,286
Total	1,693.77	1,693.77	1,693.77	1,812,286	1,812,286

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
Home Improvement Superstore	9.50	7.30	7.30	23.40	57.60	19.00	32	20	48

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.546249	0.062948	0.174600	0.125189	0.034587	0.004960	0.015036	0.022157	0.002053	0.003311	0.006538	0.000702	0.001670

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	4.0500e-003	0.0369	0.0310	2.2000e-004		2.8000e-003	2.8000e-003		2.8000e-003	2.8000e-003		44.2253	44.2253	8.5000e-004	8.1000e-004	44.4944
NaturalGas Unmitigated	4.0500e-003	0.0369	0.0310	2.2000e-004		2.8000e-003	2.8000e-003		2.8000e-003	2.8000e-003		44.2253	44.2253	8.5000e-004	8.1000e-004	44.4944

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Home Improvement Superstore	375.915	4.0500e-003	0.0369	0.0310	2.2000e-004		2.8000e-003	2.8000e-003		2.8000e-003	2.8000e-003		44.2253	44.2253	8.5000e-004	8.1000e-004	44.4944
Total		**4.0500e-003**	**0.0369**	**0.0310**	**2.2000e-004**		**2.8000e-003**	**2.8000e-003**		**2.8000e-003**	**2.8000e-003**		**44.2253**	**44.2253**	**8.5000e-004**	**8.1000e-004**	**44.4944**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Home Improvement Superstore	0.375915	4.0500e-003	0.0369	0.0310	2.2000e-004		2.8000e-003	2.8000e-003		2.8000e-003	2.8000e-003		44.2253	44.2253	8.5000e-004	8.1000e-004	44.4944
Total		**4.0500e-003**	**0.0369**	**0.0310**	**2.2000e-004**		**2.8000e-003**	**2.8000e-003**		**2.8000e-003**	**2.8000e-003**		**44.2253**	**44.2253**	**8.5000e-004**	**8.1000e-004**	**44.4944**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.5297	6.0000e-005	5.8800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0121	0.0121	4.0000e-005		0.0128
Unmitigated	1.5297	6.0000e-005	5.8800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0121	0.0121	4.0000e-005		0.0128

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3499					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.1792					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.9000e-004	6.0000e-005	5.8800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0121	0.0121	4.0000e-005		0.0128
Total	**1.5297**	**6.0000e-005**	**5.8800e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**0.0121**	**0.0121**	**4.0000e-005**		**0.0128**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3499					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.1792					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.9000e-004	6.0000e-005	5.8800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0121	0.0121	4.0000e-005		0.0128
Total	**1.5297**	**6.0000e-005**	**5.8800e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**0.0121**	**0.0121**	**4.0000e-005**		**0.0128**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Vegetation

Existing Home Improvement Superstore

San Francisco Bay Area Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Home Improvement Superstore	55.10	1000sqft	1.60	55,104.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2014
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - proj site appx 1.6 acre based on site plans

Vehicle Trips - client provided trip gen

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	55,100.00	55,104.00
tblLandUse	LotAcreage	1.26	1.60
tblVehicleTrips	ST_TR	56.72	30.74
tblVehicleTrips	SU_TR	55.80	30.74
tblVehicleTrips	WD_TR	29.80	30.74

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	128.0503	26.6554	21.5102	0.0260	5.8750	1.6071	7.1823	2.9737	1.5031	4.1764	0.0000	2,569.9309	2,569.9309	0.6295	0.0000	2,583.1494
Total	**128.0503**	**26.6554**	**21.5102**	**0.0260**	**5.8750**	**1.6071**	**7.1823**	**2.9737**	**1.5031**	**4.1764**	**0.0000**	**2,569.9309**	**2,569.9309**	**0.6295**	**0.0000**	**2,583.1494**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	128.0503	26.6554	21.5102	0.0260	5.8750	1.6071	7.1823	2.9737	1.5031	4.1764	0.0000	2,569.9309	2,569.9309	0.6295	0.0000	2,583.1494
Total	**128.0503**	**26.6554**	**21.5102**	**0.0260**	**5.8750**	**1.6071**	**7.1823**	**2.9737**	**1.5031**	**4.1764**	**0.0000**	**2,569.9309**	**2,569.9309**	**0.6295**	**0.0000**	**2,583.1494**

	ROG	NOx	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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.5297	6.0000e-005	5.8800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0121	0.0121	4.0000e-005		0.0128
Energy	4.0500e-003	0.0369	0.0310	2.2000e-004		2.8000e-003	2.8000e-003		2.8000e-003	2.8000e-003		44.2253	44.2253	8.5000e-004	8.1000e-004	44.4944
Mobile	6.7210	9.9793	55.0287	0.0550	3.8474	0.1282	3.9756	1.0291	0.1175	1.1467		5,060.8052	5,060.8052	0.2862		5,066.8158
Total	**8.2548**	**10.0162**	**55.0655**	**0.0553**	**3.8474**	**0.1310**	**3.9784**	**1.0291**	**0.1203**	**1.1495**		**5,105.0426**	**5,105.0426**	**0.2871**	**8.1000e-004**	**5,111.3231**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.5297	6.0000e-005	5.8800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0121	0.0121	4.0000e-005		0.0128
Energy	4.0500e-003	0.0369	0.0310	2.2000e-004		2.8000e-003	2.8000e-003		2.8000e-003	2.8000e-003		44.2253	44.2253	8.5000e-004	8.1000e-004	44.4944
Mobile	6.7210	9.9793	55.0287	0.0550	3.8474	0.1282	3.9756	1.0291	0.1175	1.1467		5,060.8052	5,060.8052	0.2862		5,066.8158
Total	**8.2548**	**10.0162**	**55.0655**	**0.0553**	**3.8474**	**0.1310**	**3.9784**	**1.0291**	**0.1203**	**1.1495**		**5,105.0426**	**5,105.0426**	**0.2871**	**8.1000e-004**	**5,111.3231**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2017	1/27/2017	5	20	
2	Site Preparation	Site Preparation	1/28/2017	1/31/2017	5	2	
3	Grading	Grading	2/1/2017	2/6/2017	5	4	
4	Building Construction	Building Construction	2/7/2017	11/13/2017	5	200	
5	Paving	Paving	11/14/2017	11/27/2017	5	10	
6	Architectural Coating	Architectural Coating	11/28/2017	12/11/2017	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 82,656; Non-Residential Outdoor: 27,552 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	174	0.41
Grading	Rubber Tired Dozers	1	6.00	255	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	226	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	125	0.42
Paving	Paving Equipment	1	8.00	130	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	18.00	9.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	4.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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	lb/day										lb/day					
Off-Road	2.7216	26.5855	20.8712	0.0245		1.6062	1.6062		1.5022	1.5022		2,457.4682	2,457.4682	0.6235		2,470.5620
Total	**2.7216**	**26.5855**	**20.8712**	**0.0245**		**1.6062**	**1.6062**		**1.5022**	**1.5022**		**2,457.4682**	**2,457.4682**	**0.6235**		**2,470.5620**

3.2 Demolition - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0469	0.0700	0.6390	1.3900e-003	0.1226	9.4000e-004	0.1235	0.0325	8.7000e-004	0.0334		112.4627	112.4627	5.9400e-003		112.5874
Total	**0.0469**	**0.0700**	**0.6390**	**1.3900e-003**	**0.1226**	**9.4000e-004**	**0.1235**	**0.0325**	**8.7000e-004**	**0.0334**		**112.4627**	**112.4627**	**5.9400e-003**		**112.5874**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.7216	26.5855	20.8712	0.0245		1.6062	1.6062		1.5022	1.5022	0.0000	2,457.4682	2,457.4682	0.6235		2,470.5620
Total	**2.7216**	**26.5855**	**20.8712**	**0.0245**		**1.6062**	**1.6062**		**1.5022**	**1.5022**	**0.0000**	**2,457.4682**	**2,457.4682**	**0.6235**		**2,470.5620**

3.2 Demolition - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0469	0.0700	0.6390	1.3900e-003	0.1226	9.4000e-004	0.1235	0.0325	8.7000e-004	0.0334		112.4627	112.4627	5.9400e-003		112.5874
Total	**0.0469**	**0.0700**	**0.6390**	**1.3900e-003**	**0.1226**	**9.4000e-004**	**0.1235**	**0.0325**	**8.7000e-004**	**0.0334**		**112.4627**	**112.4627**	**5.9400e-003**		**112.5874**

3.3 Site Preparation - 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	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	2.3109	24.2288	15.9299	0.0171		1.3067	1.3067		1.2022	1.2022		1,752.1239	1,752.1239	0.5369		1,763.3977
Total	**2.3109**	**24.2288**	**15.9299**	**0.0171**	**5.7996**	**1.3067**	**7.1063**	**2.9537**	**1.2022**	**4.1559**		**1,752.1239**	**1,752.1239**	**0.5369**		**1,763.3977**

3.3 Site Preparation - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0289	0.0431	0.3932	8.6000e-004	0.0754	5.8000e-004	0.0760	0.0200	5.3000e-004	0.0205		69.2078	69.2078	3.6500e-003		69.2845
Total	**0.0289**	**0.0431**	**0.3932**	**8.6000e-004**	**0.0754**	**5.8000e-004**	**0.0760**	**0.0200**	**5.3000e-004**	**0.0205**		**69.2078**	**69.2078**	**3.6500e-003**		**69.2845**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	2.3109	24.2288	15.9299	0.0171		1.3067	1.3067		1.2022	1.2022	0.0000	1,752.1239	1,752.1239	0.5369		1,763.3977
Total	**2.3109**	**24.2288**	**15.9299**	**0.0171**	**5.7996**	**1.3067**	**7.1063**	**2.9537**	**1.2022**	**4.1559**	**0.0000**	**1,752.1239**	**1,752.1239**	**0.5369**		**1,763.3977**

3.3 Site Preparation - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0289	0.0431	0.3932	8.6000e-004	0.0754	5.8000e-004	0.0760	0.0200	5.3000e-004	0.0205		69.2078	69.2078	3.6500e-003		69.2845
Total	**0.0289**	**0.0431**	**0.3932**	**8.6000e-004**	**0.0754**	**5.8000e-004**	**0.0760**	**0.0200**	**5.3000e-004**	**0.0205**		**69.2078**	**69.2078**	**3.6500e-003**		**69.2845**

3.4 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	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.8844	19.7889	13.1786	0.0141		1.0661	1.0661		0.9808	0.9808		1,439.1894	1,439.1894	0.4410		1,448.4496
Total	**1.8844**	**19.7889**	**13.1786**	**0.0141**	**4.9143**	**1.0661**	**5.9804**	**2.5256**	**0.9808**	**3.5064**		**1,439.1894**	**1,439.1894**	**0.4410**		**1,448.4496**

3.4 Grading - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0289	0.0431	0.3932	8.6000e-004	0.0754	5.8000e-004	0.0760	0.0200	5.3000e-004	0.0205		69.2078	69.2078	3.6500e-003		69.2845
Total	**0.0289**	**0.0431**	**0.3932**	**8.6000e-004**	**0.0754**	**5.8000e-004**	**0.0760**	**0.0200**	**5.3000e-004**	**0.0205**		**69.2078**	**69.2078**	**3.6500e-003**		**69.2845**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.8844	19.7889	13.1786	0.0141		1.0661	1.0661		0.9808	0.9808	0.0000	1,439.1894	1,439.1894	0.4410		1,448.4496
Total	**1.8844**	**19.7889**	**13.1786**	**0.0141**	**4.9143**	**1.0661**	**5.9804**	**2.5256**	**0.9808**	**3.5064**	**0.0000**	**1,439.1894**	**1,439.1894**	**0.4410**		**1,448.4496**

3.4 Grading - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0289	0.0431	0.3932	8.6000e-004	0.0754	5.8000e-004	0.0760	0.0200	5.3000e-004	0.0205		69.2078	69.2078	3.6500e-003		69.2845
Total	**0.0289**	**0.0431**	**0.3932**	**8.6000e-004**	**0.0754**	**5.8000e-004**	**0.0760**	**0.0200**	**5.3000e-004**	**0.0205**		**69.2078**	**69.2078**	**3.6500e-003**		**69.2845**

3.5 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	lb/day										lb/day					
Off-Road	2.9546	19.1088	14.3110	0.0220		1.2257	1.2257		1.1823	1.1823		2,034.2860	2,034.2860	0.4268		2,043.2497
Total	**2.9546**	**19.1088**	**14.3110**	**0.0220**		**1.2257**	**1.2257**		**1.1823**	**1.1823**		**2,034.2860**	**2,034.2860**	**0.4268**		**2,043.2497**

3.5 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1165	0.8183	1.5294	2.1400e-003	0.0598	0.0117	0.0715	0.0171	0.0108	0.0279		209.9841	209.9841	1.6600e-003		210.0190
Worker	0.0650	0.0969	0.8848	1.9300e-003	0.1698	1.3000e-003	0.1711	0.0450	1.2000e-003	0.0462		155.7176	155.7176	8.2200e-003		155.8902
Total	**0.1815**	**0.9151**	**2.4142**	**4.0700e-003**	**0.2296**	**0.0130**	**0.2426**	**0.0621**	**0.0120**	**0.0741**		**365.7017**	**365.7017**	**9.8800e-003**		**365.9092**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9546	19.1088	14.3110	0.0220		1.2257	1.2257		1.1823	1.1823	0.0000	2,034.2860	2,034.2860	0.4268		2,043.2497
Total	**2.9546**	**19.1088**	**14.3110**	**0.0220**		**1.2257**	**1.2257**		**1.1823**	**1.1823**	**0.0000**	**2,034.2860**	**2,034.2860**	**0.4268**		**2,043.2497**

3.5 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1165	0.8183	1.5294	2.1400e-003	0.0598	0.0117	0.0715	0.0171	0.0108	0.0279		209.9841	209.9841	1.6600e-003		210.0190
Worker	0.0650	0.0969	0.8848	1.9300e-003	0.1698	1.3000e-003	0.1711	0.0450	1.2000e-003	0.0462		155.7176	155.7176	8.2200e-003		155.8902
Total	**0.1815**	**0.9151**	**2.4142**	**4.0700e-003**	**0.2296**	**0.0130**	**0.2426**	**0.0621**	**0.0120**	**0.0741**		**365.7017**	**365.7017**	**9.8800e-003**		**365.9092**

3.6 Paving - 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	lb/day										lb/day					
Off-Road	1.1857	12.0981	9.0308	0.0133		0.7333	0.7333		0.6755	0.6755		1,347.6575	1,347.6575	0.4052		1,356.1677
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1857**	**12.0981**	**9.0308**	**0.0133**		**0.7333**	**0.7333**		**0.6755**	**0.6755**		**1,347.6575**	**1,347.6575**	**0.4052**		**1,356.1677**

3.6 Paving - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0469	0.0700	0.6390	1.3900e-003	0.1226	9.4000e-004	0.1235	0.0325	8.7000e-004	0.0334		112.4627	112.4627	5.9400e-003		112.5874
Total	**0.0469**	**0.0700**	**0.6390**	**1.3900e-003**	**0.1226**	**9.4000e-004**	**0.1235**	**0.0325**	**8.7000e-004**	**0.0334**		**112.4627**	**112.4627**	**5.9400e-003**		**112.5874**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1857	12.0981	9.0308	0.0133		0.7333	0.7333		0.6755	0.6755	0.0000	1,347.6575	1,347.6575	0.4052		1,356.1677
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1857**	**12.0981**	**9.0308**	**0.0133**		**0.7333**	**0.7333**		**0.6755**	**0.6755**	**0.0000**	**1,347.6575**	**1,347.6575**	**0.4052**		**1,356.1677**

3.6 Paving - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0469	0.0700	0.6390	1.3900e-003	0.1226	9.4000e-004	0.1235	0.0325	8.7000e-004	0.0334		112.4627	112.4627	5.9400e-003		112.5874
Total	**0.0469**	**0.0700**	**0.6390**	**1.3900e-003**	**0.1226**	**9.4000e-004**	**0.1235**	**0.0325**	**8.7000e-004**	**0.0334**		**112.4627**	**112.4627**	**5.9400e-003**		**112.5874**

3.7 Architectural Coating - 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	lb/day										lb/day					
Archit. Coating	127.7035					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721
Total	**128.0358**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**		**281.4481**	**281.4481**	**0.0297**		**282.0721**

3.7 Architectural Coating - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0144	0.0215	0.1966	4.3000e-004	0.0377	2.9000e-004	0.0380	0.0100	2.7000e-004	0.0103		34.6039	34.6039	1.8300e-003		34.6423
Total	**0.0144**	**0.0215**	**0.1966**	**4.3000e-004**	**0.0377**	**2.9000e-004**	**0.0380**	**0.0100**	**2.7000e-004**	**0.0103**		**34.6039**	**34.6039**	**1.8300e-003**		**34.6423**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	127.7035					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297		282.0721
Total	**128.0358**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**	**0.0000**	**281.4481**	**281.4481**	**0.0297**		**282.0721**

3.7 Architectural Coating - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0144	0.0215	0.1966	4.3000e-004	0.0377	2.9000e-004	0.0380	0.0100	2.7000e-004	0.0103		34.6039	34.6039	1.8300e-003		34.6423
Total	**0.0144**	**0.0215**	**0.1966**	**4.3000e-004**	**0.0377**	**2.9000e-004**	**0.0380**	**0.0100**	**2.7000e-004**	**0.0103**		**34.6039**	**34.6039**	**1.8300e-003**		**34.6423**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.7210	9.9793	55.0287	0.0550	3.8474	0.1282	3.9756	1.0291	0.1175	1.1467		5,060.8052	5,060.8052	0.2862		5,066.8158
Unmitigated	6.7210	9.9793	55.0287	0.0550	3.8474	0.1282	3.9756	1.0291	0.1175	1.1467		5,060.8052	5,060.8052	0.2862		5,066.8158

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Home Improvement Superstore	1,693.77	1,693.77	1693.77	1,812,286	1,812,286
Total	1,693.77	1,693.77	1,693.77	1,812,286	1,812,286

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
Home Improvement Superstore	9.50	7.30	7.30	23.40	57.60	19.00	32	20	48

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.546249	0.062948	0.174600	0.125189	0.034587	0.004960	0.015036	0.022157	0.002053	0.003311	0.006538	0.000702	0.001670

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	4.0500e-003	0.0369	0.0310	2.2000e-004		2.8000e-003	2.8000e-003		2.8000e-003	2.8000e-003		44.2253	44.2253	8.5000e-004	8.1000e-004	44.4944
NaturalGas Unmitigated	4.0500e-003	0.0369	0.0310	2.2000e-004		2.8000e-003	2.8000e-003		2.8000e-003	2.8000e-003		44.2253	44.2253	8.5000e-004	8.1000e-004	44.4944

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Home Improvement Superstore	375.915	4.0500e-003	0.0369	0.0310	2.2000e-004		2.8000e-003	2.8000e-003		2.8000e-003	2.8000e-003		44.2253	44.2253	8.5000e-004	8.1000e-004	44.4944
Total		**4.0500e-003**	**0.0369**	**0.0310**	**2.2000e-004**		**2.8000e-003**	**2.8000e-003**		**2.8000e-003**	**2.8000e-003**		**44.2253**	**44.2253**	**8.5000e-004**	**8.1000e-004**	**44.4944**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Home Improvement Superstore	0.375915	4.0500e-003	0.0369	0.0310	2.2000e-004		2.8000e-003	2.8000e-003		2.8000e-003	2.8000e-003		44.2253	44.2253	8.5000e-004	8.1000e-004	44.4944
Total		**4.0500e-003**	**0.0369**	**0.0310**	**2.2000e-004**		**2.8000e-003**	**2.8000e-003**		**2.8000e-003**	**2.8000e-003**		**44.2253**	**44.2253**	**8.5000e-004**	**8.1000e-004**	**44.4944**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.5297	6.0000e-005	5.8800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0121	0.0121	4.0000e-005		0.0128
Unmitigated	1.5297	6.0000e-005	5.8800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0121	0.0121	4.0000e-005		0.0128

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3499					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.1792					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.9000e-004	6.0000e-005	5.8800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0121	0.0121	4.0000e-005		0.0128
Total	**1.5297**	**6.0000e-005**	**5.8800e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**0.0121**	**0.0121**	**4.0000e-005**		**0.0128**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3499					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.1792					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.9000e-004	6.0000e-005	5.8800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0121	0.0121	4.0000e-005		0.0128
Total	**1.5297**	**6.0000e-005**	**5.8800e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**0.0121**	**0.0121**	**4.0000e-005**		**0.0128**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Vegetation

Online Ordering Grocery Store Project

San Francisco Bay Area Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	45.00	Space	0.41	18,000.00	0
Fast Food Restaurant with Drive Thru	11.60	1000sqft	1.19	11,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2018
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - apprx 1.6 acres based on site plans

Construction Phase - construction sched provided by client

Off-road Equipment -

Off-road Equipment - info provided by client

Off-road Equipment - info provided by client

Off-road Equipment - info provided by client

Off-road Equipment -

Off-road Equipment - info provided by client

Trips and VMT - client provided data

Demolition - existing wood yard building to be demolished

Grading - apprx 1.6 acres based on site plans

Architectural Coating - use of low VOC paint

Vehicle Trips -

Area Coating - use of low VOC paint

Construction Off-road Equipment Mitigation - Tier 3 mitigation

Area Mitigation - use of low VOC paint

Energy Mitigation - 2013 exceeds 2008 T24 by 25%

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	150
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
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tblConstructionPhase	PhaseEndDate	10/31/2016	10/28/2016
tblConstructionPhase	PhaseEndDate	10/3/2016	9/30/2016
tblConstructionPhase	PhaseStartDate	11/12/2016	1/9/2017
tblConstructionPhase	PhaseStartDate	10/1/2016	9/30/2016
tblConstructionPhase	PhaseStartDate	9/22/2016	9/21/2016
tblConstructionPhase	PhaseStartDate	10/29/2016	10/31/2016
tblConstructionPhase	PhaseStartDate	9/17/2016	9/19/2016
tblGrading	AcresOfGrading	3.00	1.60
tblGrading	AcresOfGrading	1.50	0.00
tblGrading	MaterialExported	0.00	1,200.00
tblGrading	MaterialImported	0.00	2,400.00
tblLandUse	LotAcreage	0.27	1.19
tblOffRoadEquipment	HorsePower	81.00	5.00
tblOffRoadEquipment	HorsePower	226.00	410.00
tblOffRoadEquipment	HorsePower	89.00	100.00
tblOffRoadEquipment	HorsePower	255.00	97.00
tblOffRoadEquipment	HorsePower	97.00	87.00
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tblOffRoadEquipment	HorsePower	122.00	174.00
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tblOffRoadEquipment	UsageHours	6.00	5.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblProjectCharacteristics	OperationalYear	2014	2018
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripNumber	35.00	3.00
tblTripsAndVMT	HaulingTripNumber	0.00	20.00
tblTripsAndVMT	HaulingTripNumber	356.00	20.00
tblTripsAndVMT	VendorTripLength	7.30	20.00
tblTripsAndVMT	VendorTripLength	7.30	25.00

tblTripsAndVMT	VendorTripLength	7.30	25.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	5.00	6.00
tblTripsAndVMT	WorkerTripLength	12.40	20.00
tblTripsAndVMT	WorkerTripLength	12.40	15.00
tblTripsAndVMT	WorkerTripLength	12.40	15.00
tblTripsAndVMT	WorkerTripNumber	20.00	2.00
tblTripsAndVMT	WorkerTripNumber	10.00	4.00
tblTripsAndVMT	WorkerTripNumber	20.00	6.00
tblTripsAndVMT	WorkerTripNumber	12.00	20.00
tblVehicleTrips	ST_TR	722.03	102.30
tblVehicleTrips	SU_TR	542.72	102.30
tblVehicleTrips	WD_TR	496.12	102.30

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					
2016	0.0606	0.5976	0.4114	6.5000e-004	0.0347	0.0353	0.0700	0.0161	0.0328	0.0489	0.0000	59.9602	59.9602	0.0151	0.0000	60.2769
2017	0.0871	0.0176	0.0157	3.0000e-005	1.5000e-004	1.3900e-003	1.5300e-003	4.0000e-005	1.3900e-003	1.4300e-003	0.0000	2.1693	2.1693	2.2000e-004	0.0000	2.1740
Total	**0.1477**	**0.6152**	**0.4271**	**6.8000e-004**	**0.0348**	**0.0367**	**0.0716**	**0.0161**	**0.0342**	**0.0503**	**0.0000**	**62.1295**	**62.1295**	**0.0153**	**0.0000**	**62.4509**

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					
2016	0.0157	0.2581	0.4055	6.5000e-004	0.0179	0.0150	0.0329	7.8300e-003	0.0150	0.0228	0.0000	59.9602	59.9602	0.0151	0.0000	60.2768
2017	0.0849	0.0109	0.0154	3.0000e-005	1.5000e-004	7.6000e-004	9.1000e-004	4.0000e-005	7.6000e-004	8.0000e-004	0.0000	2.1693	2.1693	2.2000e-004	0.0000	2.1740
Total	**0.1006**	**0.2690**	**0.4209**	**6.8000e-004**	**0.0180**	**0.0158**	**0.0338**	**7.8700e-003**	**0.0157**	**0.0236**	**0.0000**	**62.1295**	**62.1295**	**0.0153**	**0.0000**	**62.4508**

	ROG	NOx	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	**31.92**	**56.27**	**1.45**	**0.00**	**48.26**	**57.12**	**52.80**	**51.09**	**54.02**	**53.07**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1283	0.0000	5.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0100e-003	1.0100e-003	0.0000	0.0000	1.0700e-003
Energy	0.0132	0.1200	0.1008	7.2000e-004		9.1200e-003	9.1200e-003		9.1200e-003	9.1200e-003	0.0000	250.9602	250.9602	7.9400e-003	3.5200e-003	252.2184
Mobile	0.5496	0.7937	4.1834	6.2400e-003	0.4125	9.4500e-003	0.4219	0.1107	8.7100e-003	0.1194	0.0000	465.3163	465.3163	0.0208	0.0000	465.7527
Waste						0.0000	0.0000		0.0000	0.0000	27.1237	0.0000	27.1237	1.6030	0.0000	60.7859
Water						0.0000	0.0000		0.0000	0.0000	1.1171	5.7713	6.8884	0.1150	2.7600e-003	10.1597
Total	**0.6911**	**0.9137**	**4.2847**	**6.9600e-003**	**0.4125**	**0.0186**	**0.4311**	**0.1107**	**0.0178**	**0.1285**	**28.2407**	**722.0488**	**750.2895**	**1.7467**	**6.2800e-003**	**788.9178**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1241	0.0000	5.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0100e-003	1.0100e-003	0.0000	0.0000	1.0700e-003
Energy	0.0122	0.1110	0.0932	6.7000e-004		8.4300e-003	8.4300e-003		8.4300e-003	8.4300e-003	0.0000	235.9002	235.9002	7.5200e-003	3.2900e-003	237.0785
Mobile	0.5496	0.7937	4.1834	6.2400e-003	0.4125	9.4500e-003	0.4219	0.1107	8.7100e-003	0.1194	0.0000	465.3163	465.3163	0.0208	0.0000	465.7527
Waste						0.0000	0.0000		0.0000	0.0000	27.1237	0.0000	27.1237	1.6030	0.0000	60.7859
Water						0.0000	0.0000		0.0000	0.0000	1.1171	5.7713	6.8884	0.1150	2.7600e-003	10.1580
Total	**0.6859**	**0.9047**	**4.2771**	**6.9100e-003**	**0.4125**	**0.0179**	**0.4304**	**0.1107**	**0.0171**	**0.1278**	**28.2407**	**706.9889**	**735.2296**	**1.7462**	**6.0500e-003**	**773.7761**

	ROG	NOx	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	**0.75**	**0.99**	**0.18**	**0.72**	**0.00**	**3.72**	**0.16**	**0.00**	**3.87**	**0.54**	**0.00**	**2.09**	**2.01**	**0.03**	**3.66**	**1.92**

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	8/15/2016	9/16/2016	5	25	
2	Site Preparation	Site Preparation	9/19/2016	9/21/2016	5	3	
3	Grading	Grading	9/21/2016	9/30/2016	5	8	
4	Building Construction	Building Construction	9/30/2016	10/28/2016	5	21	
5	Paving	Paving	10/31/2016	11/11/2016	5	10	
6	Architectural Coating	Architectural Coating	1/9/2017	1/30/2017	5	16	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.6

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 18,210; Non-Residential Outdoor: 6,070 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	6.00	5	0.73
Demolition	Excavators	1	7.00	239	0.40
Demolition	Off-Highway Tractors	0		171	0.42
Demolition	Rubber Tired Dozers	3	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Off-Highway Tractors	1	8.00	174	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Excavators	1	7.00	200	0.38
Grading	Graders	1	6.00	174	0.41
Grading	Off-Highway Tractors	1	6.00	119	0.44

Grading	Off-Highway Trucks	1	4.00	410	0.38
Grading	Rubber Tired Dozers	1	6.00	255	0.40
Grading	Skid Steer Loaders	1	7.00	68	0.41
Grading	Tractors/Loaders/Backhoes	2	7.00	87	0.37
Building Construction	Cranes	1	1.00	410	0.29
Building Construction	Forklifts	2	5.00	100	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Off-Highway Tractors	0		122	0.44
Building Construction	Skid Steer Loaders	0		64	0.37
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	1	5.00	15	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	125	0.42
Paving	Paving Equipment	1	8.00	130	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	8	2.00	1.00	3.00	20.00	20.00	10.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	4	4.00	1.00	20.00	15.00	25.00	10.00	LD_Mix	HDT_Mix	HHDT
Grading	8	6.00	1.00	20.00	15.00	25.00	10.00	LD_Mix	HDT_Mix	HHDT
Building Construction	6	20.00	6.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2016

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					3.7400e-003	0.0000	3.7400e-003	5.7000e-004	0.0000	5.7000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0176	0.1897	0.1140	2.1000e-004		0.0115	0.0115		0.0106	0.0106	0.0000	19.4858	19.4858	5.8800e-003	0.0000	19.6092
Total	**0.0176**	**0.1897**	**0.1140**	**2.1000e-004**	**3.7400e-003**	**0.0115**	**0.0153**	**5.7000e-004**	**0.0106**	**0.0112**	**0.0000**	**19.4858**	**19.4858**	**5.8800e-003**	**0.0000**	**19.6092**

3.2 Demolition - 2016

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	3.0000e-005	2.4000e-004	3.4000e-004	0.0000	1.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0527	0.0527	0.0000	0.0000	0.0527
Vendor	2.4000e-004	2.9700e-003	2.3400e-003	1.0000e-005	2.2000e-004	5.0000e-005	2.7000e-004	6.0000e-005	5.0000e-005	1.1000e-004	0.0000	0.7064	0.7064	1.0000e-005	0.0000	0.7065
Worker	1.1000e-004	2.1000e-004	2.0200e-003	0.0000	3.7000e-004	0.0000	3.7000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3288	0.3288	2.0000e-005	0.0000	0.3291
Total	**3.8000e-004**	**3.4200e-003**	**4.7000e-003**	**1.0000e-005**	**6.0000e-004**	**5.0000e-005**	**6.6000e-004**	**1.6000e-004**	**5.0000e-005**	**2.2000e-004**	**0.0000**	**1.0878**	**1.0878**	**3.0000e-005**	**0.0000**	**1.0883**

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					1.6800e-003	0.0000	1.6800e-003	2.5000e-004	0.0000	2.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.9500e-003	0.0698	0.1284	2.1000e-004		4.7100e-003	4.7100e-003		4.7100e-003	4.7100e-003	0.0000	19.4858	19.4858	5.8800e-003	0.0000	19.6092
Total	**3.9500e-003**	**0.0698**	**0.1284**	**2.1000e-004**	**1.6800e-003**	**4.7100e-003**	**6.3900e-003**	**2.5000e-004**	**4.7100e-003**	**4.9600e-003**	**0.0000**	**19.4858**	**19.4858**	**5.8800e-003**	**0.0000**	**19.6092**

3.2 Demolition - 2016

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	3.0000e-005	2.4000e-004	3.4000e-004	0.0000	1.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0527	0.0527	0.0000	0.0000	0.0527
Vendor	2.4000e-004	2.9700e-003	2.3400e-003	1.0000e-005	2.2000e-004	5.0000e-005	2.7000e-004	6.0000e-005	5.0000e-005	1.1000e-004	0.0000	0.7064	0.7064	1.0000e-005	0.0000	0.7065
Worker	1.1000e-004	2.1000e-004	2.0200e-003	0.0000	3.7000e-004	0.0000	3.7000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3288	0.3288	2.0000e-005	0.0000	0.3291
Total	**3.8000e-004**	**3.4200e-003**	**4.7000e-003**	**1.0000e-005**	**6.0000e-004**	**5.0000e-005**	**6.6000e-004**	**1.6000e-004**	**5.0000e-005**	**2.2000e-004**	**0.0000**	**1.0878**	**1.0878**	**3.0000e-005**	**0.0000**	**1.0883**

3.3 Site Preparation - 2016

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					7.9000e-003	0.0000	7.9000e-003	4.3400e-003	0.0000	4.3400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3400e-003	0.0466	0.0305	3.0000e-005		2.4800e-003	2.4800e-003		2.2800e-003	2.2800e-003	0.0000	3.2378	3.2378	9.8000e-004	0.0000	3.2583
Total	**4.3400e-003**	**0.0466**	**0.0305**	**3.0000e-005**	**7.9000e-003**	**2.4800e-003**	**0.0104**	**4.3400e-003**	**2.2800e-003**	**6.6200e-003**	**0.0000**	**3.2378**	**3.2378**	**9.8000e-004**	**0.0000**	**3.2583**

3.3 Site Preparation - 2016

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	1.8000e-004	1.6100e-003	2.2400e-003	0.0000	8.0000e-005	2.0000e-005	1.0000e-004	2.0000e-005	2.0000e-005	4.0000e-005	0.0000	0.3510	0.3510	0.0000	0.0000	0.3511
Vendor	3.0000e-005	4.4000e-004	3.0000e-004	0.0000	3.0000e-005	1.0000e-005	4.0000e-005	1.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.1054	0.1054	0.0000	0.0000	0.1054
Worker	2.0000e-005	4.0000e-005	3.8000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0595	0.0595	0.0000	0.0000	0.0596
Total	**2.3000e-004**	**2.0900e-003**	**2.9200e-003**	**0.0000**	**1.8000e-004**	**3.0000e-005**	**2.1000e-004**	**5.0000e-005**	**3.0000e-005**	**8.0000e-005**	**0.0000**	**0.5159**	**0.5159**	**0.0000**	**0.0000**	**0.5160**

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					3.5600e-003	0.0000	3.5600e-003	1.9600e-003	0.0000	1.9600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.4000e-004	0.0165	0.0232	3.0000e-005		7.9000e-004	7.9000e-004		7.9000e-004	7.9000e-004	0.0000	3.2378	3.2378	9.8000e-004	0.0000	3.2583
Total	**8.4000e-004**	**0.0165**	**0.0232**	**3.0000e-005**	**3.5600e-003**	**7.9000e-004**	**4.3500e-003**	**1.9600e-003**	**7.9000e-004**	**2.7500e-003**	**0.0000**	**3.2378**	**3.2378**	**9.8000e-004**	**0.0000**	**3.2583**

3.3 Site Preparation - 2016

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	1.8000e-004	1.6100e-003	2.2400e-003	0.0000	8.0000e-005	2.0000e-005	1.0000e-004	2.0000e-005	2.0000e-005	4.0000e-005	0.0000	0.3510	0.3510	0.0000	0.0000	0.3511
Vendor	3.0000e-005	4.4000e-004	3.0000e-004	0.0000	3.0000e-005	1.0000e-005	4.0000e-005	1.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.1054	0.1054	0.0000	0.0000	0.1054
Worker	2.0000e-005	4.0000e-005	3.8000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0595	0.0595	0.0000	0.0000	0.0596
Total	**2.3000e-004**	**2.0900e-003**	**2.9200e-003**	**0.0000**	**1.8000e-004**	**3.0000e-005**	**2.1000e-004**	**5.0000e-005**	**3.0000e-005**	**8.0000e-005**	**0.0000**	**0.5159**	**0.5159**	**0.0000**	**0.0000**	**0.5160**

3.4 Grading - 2016

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					0.0189	0.0000	0.0189	0.0100	0.0000	0.0100	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0143	0.1544	0.0943	1.4000e-004		8.2400e-003	8.2400e-003		7.5800e-003	7.5800e-003	0.0000	12.8928	12.8928	3.8900e-003	0.0000	12.9744
Total	**0.0143**	**0.1544**	**0.0943**	**1.4000e-004**	**0.0189**	**8.2400e-003**	**0.0272**	**0.0100**	**7.5800e-003**	**0.0176**	**0.0000**	**12.8928**	**12.8928**	**3.8900e-003**	**0.0000**	**12.9744**

3.4 Grading - 2016

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	1.8000e-004	1.6100e-003	2.2400e-003	0.0000	8.0000e-005	2.0000e-005	1.0000e-004	2.0000e-005	2.0000e-005	4.0000e-005	0.0000	0.3510	0.3510	0.0000	0.0000	0.3511
Vendor	9.0000e-005	1.1700e-003	8.1000e-004	0.0000	9.0000e-005	2.0000e-005	1.1000e-004	3.0000e-005	2.0000e-005	4.0000e-005	0.0000	0.2810	0.2810	0.0000	0.0000	0.2810
Worker	1.0000e-004	1.6000e-004	1.5000e-003	0.0000	2.6000e-004	0.0000	2.7000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2380	0.2380	1.0000e-005	0.0000	0.2382
Total	**3.7000e-004**	**2.9400e-003**	**4.5500e-003**	**0.0000**	**4.3000e-004**	**4.0000e-005**	**4.8000e-004**	**1.2000e-004**	**4.0000e-005**	**1.5000e-004**	**0.0000**	**0.8700**	**0.8700**	**1.0000e-005**	**0.0000**	**0.8703**

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					8.5100e-003	0.0000	8.5100e-003	4.5100e-003	0.0000	4.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0600e-003	0.0584	0.0839	1.4000e-004		3.0400e-003	3.0400e-003		3.0400e-003	3.0400e-003	0.0000	12.8928	12.8928	3.8900e-003	0.0000	12.9744
Total	**3.0600e-003**	**0.0584**	**0.0839**	**1.4000e-004**	**8.5100e-003**	**3.0400e-003**	**0.0116**	**4.5100e-003**	**3.0400e-003**	**7.5500e-003**	**0.0000**	**12.8928**	**12.8928**	**3.8900e-003**	**0.0000**	**12.9744**

3.4 Grading - 2016

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	1.8000e-004	1.6100e-003	2.2400e-003	0.0000	8.0000e-005	2.0000e-005	1.0000e-004	2.0000e-005	2.0000e-005	4.0000e-005	0.0000	0.3510	0.3510	0.0000	0.0000	0.3511
Vendor	9.0000e-005	1.1700e-003	8.1000e-004	0.0000	9.0000e-005	2.0000e-005	1.1000e-004	3.0000e-005	2.0000e-005	4.0000e-005	0.0000	0.2810	0.2810	0.0000	0.0000	0.2810
Worker	1.0000e-004	1.6000e-004	1.5000e-003	0.0000	2.6000e-004	0.0000	2.7000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2380	0.2380	1.0000e-005	0.0000	0.2382
Total	**3.7000e-004**	**2.9400e-003**	**4.5500e-003**	**0.0000**	**4.3000e-004**	**4.0000e-005**	**4.8000e-004**	**1.2000e-004**	**4.0000e-005**	**1.5000e-004**	**0.0000**	**0.8700**	**0.8700**	**1.0000e-005**	**0.0000**	**0.8703**

3.5 Building Construction - 2016

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	0.0146	0.1247	0.0909	1.4000e-004		8.8100e-003	8.8100e-003		8.4000e-003	8.4000e-003	0.0000	12.0369	12.0369	2.3100e-003	0.0000	12.0855
Total	**0.0146**	**0.1247**	**0.0909**	**1.4000e-004**		**8.8100e-003**	**8.8100e-003**		**8.4000e-003**	**8.4000e-003**	**0.0000**	**12.0369**	**12.0369**	**2.3100e-003**	**0.0000**	**12.0855**

3.5 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.0000e-004	6.3100e-003	9.3200e-003	2.0000e-005	4.1000e-004	9.0000e-005	5.0000e-004	1.2000e-004	9.0000e-005	2.0000e-004	0.0000	1.3624	1.3624	1.0000e-005	0.0000	1.3627
Worker	8.0000e-004	1.1500e-003	0.0112	2.0000e-005	1.9000e-003	2.0000e-005	1.9200e-003	5.1000e-004	1.0000e-005	5.2000e-004	0.0000	1.7287	1.7287	1.0000e-004	0.0000	1.7307
Total	**1.6000e-003**	**7.4600e-003**	**0.0205**	**4.0000e-005**	**2.3100e-003**	**1.1000e-004**	**2.4200e-003**	**6.3000e-004**	**1.0000e-004**	**7.2000e-004**	**0.0000**	**3.0911**	**3.0911**	**1.1000e-004**	**0.0000**	**3.0934**

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	2.8700e-003	0.0643	0.0853	1.4000e-004		4.3000e-003	4.3000e-003		4.3000e-003	4.3000e-003	0.0000	12.0369	12.0369	2.3100e-003	0.0000	12.0855
Total	**2.8700e-003**	**0.0643**	**0.0853**	**1.4000e-004**		**4.3000e-003**	**4.3000e-003**		**4.3000e-003**	**4.3000e-003**	**0.0000**	**12.0369**	**12.0369**	**2.3100e-003**	**0.0000**	**12.0855**

3.5 Building Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.0000e-004	6.3100e-003	9.3200e-003	2.0000e-005	4.1000e-004	9.0000e-005	5.0000e-004	1.2000e-004	9.0000e-005	2.0000e-004	0.0000	1.3624	1.3624	1.0000e-005	0.0000	1.3627
Worker	8.0000e-004	1.1500e-003	0.0112	2.0000e-005	1.9000e-003	2.0000e-005	1.9200e-003	5.1000e-004	1.0000e-005	5.2000e-004	0.0000	1.7287	1.7287	1.0000e-004	0.0000	1.7307
Total	**1.6000e-003**	**7.4600e-003**	**0.0205**	**4.0000e-005**	**2.3100e-003**	**1.1000e-004**	**2.4200e-003**	**6.3000e-004**	**1.0000e-004**	**7.2000e-004**	**0.0000**	**3.0911**	**3.0911**	**1.1000e-004**	**0.0000**	**3.0934**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.4400e-003	0.0660	0.0454	7.0000e-005		4.0400e-003	4.0400e-003		3.7200e-003	3.7200e-003	0.0000	6.2071	6.2071	1.8400e-003	0.0000	6.2457
Paving	5.4000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.9800e-003**	**0.0660**	**0.0454**	**7.0000e-005**		**4.0400e-003**	**4.0400e-003**		**3.7200e-003**	**3.7200e-003**	**0.0000**	**6.2071**	**6.2071**	**1.8400e-003**	**0.0000**	**6.2457**

3.6 Paving - 2016

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	2.5000e-004	3.6000e-004	3.4600e-003	1.0000e-005	5.9000e-004	0.0000	5.9000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5351	0.5351	3.0000e-005	0.0000	0.5357
Total	**2.5000e-004**	**3.6000e-004**	**3.4600e-003**	**1.0000e-005**	**5.9000e-004**	**0.0000**	**5.9000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.5351**	**0.5351**	**3.0000e-005**	**0.0000**	**0.5357**

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	1.5700e-003	0.0327	0.0485	7.0000e-005		1.9100e-003	1.9100e-003		1.9100e-003	1.9100e-003	0.0000	6.2071	6.2071	1.8400e-003	0.0000	6.2457
Paving	5.4000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.1100e-003**	**0.0327**	**0.0485**	**7.0000e-005**		**1.9100e-003**	**1.9100e-003**		**1.9100e-003**	**1.9100e-003**	**0.0000**	**6.2071**	**6.2071**	**1.8400e-003**	**0.0000**	**6.2457**

3.6 Paving - 2016

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	2.5000e-004	3.6000e-004	3.4600e-003	1.0000e-005	5.9000e-004	0.0000	5.9000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5351	0.5351	3.0000e-005	0.0000	0.5357
Total	**2.5000e-004**	**3.6000e-004**	**3.4600e-003**	**1.0000e-005**	**5.9000e-004**	**0.0000**	**5.9000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.5351**	**0.5351**	**3.0000e-005**	**0.0000**	**0.5357**

3.7 Architectural Coating - 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					
Archit. Coating	0.0844					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6600e-003	0.0175	0.0149	2.0000e-005		1.3900e-003	1.3900e-003		1.3900e-003	1.3900e-003	0.0000	2.0426	2.0426	2.2000e-004	0.0000	2.0471
Total	**0.0871**	**0.0175**	**0.0149**	**2.0000e-005**		**1.3900e-003**	**1.3900e-003**		**1.3900e-003**	**1.3900e-003**	**0.0000**	**2.0426**	**2.0426**	**2.2000e-004**	**0.0000**	**2.0471**

3.7 Architectural Coating - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	5.0000e-005	8.0000e-005	7.6000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1267	0.1267	1.0000e-005	0.0000	0.1268
Total	**5.0000e-005**	**8.0000e-005**	**7.6000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1267**	**0.1267**	**1.0000e-005**	**0.0000**	**0.1268**

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	0.0844					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.8000e-004	0.0109	0.0147	2.0000e-005		7.6000e-004	7.6000e-004		7.6000e-004	7.6000e-004	0.0000	2.0426	2.0426	2.2000e-004	0.0000	2.0471
Total	**0.0849**	**0.0109**	**0.0147**	**2.0000e-005**		**7.6000e-004**	**7.6000e-004**		**7.6000e-004**	**7.6000e-004**	**0.0000**	**2.0426**	**2.0426**	**2.2000e-004**	**0.0000**	**2.0471**

3.7 Architectural Coating - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	5.0000e-005	8.0000e-005	7.6000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1267	0.1267	1.0000e-005	0.0000	0.1268
Total	**5.0000e-005**	**8.0000e-005**	**7.6000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1267**	**0.1267**	**1.0000e-005**	**0.0000**	**0.1268**

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	0.5496	0.7937	4.1834	6.2400e-003	0.4125	9.4500e-003	0.4219	0.1107	8.7100e-003	0.1194	0.0000	465.3163	465.3163	0.0208	0.0000	465.7527
Unmitigated	0.5496	0.7937	4.1834	6.2400e-003	0.4125	9.4500e-003	0.4219	0.1107	8.7100e-003	0.1194	0.0000	465.3163	465.3163	0.0208	0.0000	465.7527

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	1,186.68	1,186.68	1186.68	1,108,745	1,108,745
Parking Lot	0.00	0.00	0.00		
Total	1,186.68	1,186.68	1,186.68	1,108,745	1,108,745

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	9.50	7.30	7.30	2.20	78.80	19.00	29	21	50
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.546229	0.063048	0.174586	0.122573	0.033968	0.004845	0.015596	0.024745	0.002089	0.003270	0.006707	0.000678	0.001667

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	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	115.1000	115.1000	5.2000e-003	1.0800e-003	115.5431
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	120.3222	120.3222	5.4400e-003	1.1300e-003	120.7854
NaturalGas Mitigated	0.0122	0.1110	0.0932	6.7000e-004		8.4300e-003	8.4300e-003		8.4300e-003	8.4300e-003	0.0000	120.8002	120.8002	2.3200e-003	2.2100e-003	121.5354
NaturalGas Unmitigated	0.0132	0.1200	0.1008	7.2000e-004		9.1200e-003	9.1200e-003		9.1200e-003	9.1200e-003	0.0000	130.6380	130.6380	2.5000e-003	2.4000e-003	131.4331

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					
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
Fast Food Restaurant with Drive Thru	2.44806e+006	0.0132	0.1200	0.1008	7.2000e-004		9.1200e-003	9.1200e-003		9.1200e-003	9.1200e-003	0.0000	130.6380	130.6380	2.5000e-003	2.4000e-003	131.4331
Total		**0.0132**	**0.1200**	**0.1008**	**7.2000e-004**		**9.1200e-003**	**9.1200e-003**		**9.1200e-003**	**9.1200e-003**	**0.0000**	**130.6380**	**130.6380**	**2.5000e-003**	**2.4000e-003**	**131.4331**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
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
Fast Food Restaurant with Drive Thru	2.26371e+006	0.0122	0.1110	0.0932	6.7000e-004		8.4300e-003	8.4300e-003		8.4300e-003	8.4300e-003	0.0000	120.8002	120.8002	2.3200e-003	2.2100e-003	121.5354
Total		**0.0122**	**0.1110**	**0.0932**	**6.7000e-004**		**8.4300e-003**	**8.4300e-003**		**8.4300e-003**	**8.4300e-003**	**0.0000**	**120.8002**	**120.8002**	**2.3200e-003**	**2.2100e-003**	**121.5354**

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	397764	115.7141	5.2300e-003	1.0800e-003	116.1596
Parking Lot	15840	4.6080	2.1000e-004	4.0000e-005	4.6258
Total		**120.3222**	**5.4400e-003**	**1.1200e-003**	**120.7854**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Fast Food Restaurant with Drive Thru	379813	110.4920	5.0000e-003	1.0300e-003	110.9173
Parking Lot	15840	4.6080	2.1000e-004	4.0000e-005	4.6258
Total		**115.1000**	**5.2100e-003**	**1.0700e-003**	**115.5431**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

	ROG	NOx	CO	SO2	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	0.1241	0.0000	5.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0100e-003	1.0100e-003	0.0000	0.0000	1.0700e-003
Unmitigated	0.1283	0.0000	5.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0100e-003	1.0100e-003	0.0000	0.0000	1.0700e-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	0.0127					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1156					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	5.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0100e-003	1.0100e-003	0.0000	0.0000	1.0700e-003
Total	**0.1283**	**0.0000**	**5.3000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0100e-003**	**1.0100e-003**	**0.0000**	**0.0000**	**1.0700e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	8.4400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1156					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	5.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0100e-003	1.0100e-003	0.0000	0.0000	1.0700e-003
Total	**0.1241**	**0.0000**	**5.3000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0100e-003**	**1.0100e-003**	**0.0000**	**0.0000**	**1.0700e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	6.8884	0.1150	2.7600e-003	10.1580
Unmitigated	6.8884	0.1150	2.7600e-003	10.1597

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	3.52099 / 0.224744	6.8884	0.1150	2.7600e-003	10.1597
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**6.8884**	**0.1150**	**2.7600e-003**	**10.1597**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Fast Food Restaurant with Drive Thru	3.52099 / 0.224744	6.8884	0.1150	2.7600e-003	10.1580
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**6.8884**	**0.1150**	**2.7600e-003**	**10.1580**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	27.1237	1.6030	0.0000	60.7859
Unmitigated	27.1237	1.6030	0.0000	60.7859

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	133.62	27.1237	1.6030	0.0000	60.7859
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**27.1237**	**1.6030**	**0.0000**	**60.7859**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant with Drive Thru	133.62	27.1237	1.6030	0.0000	60.7859
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**27.1237**	**1.6030**	**0.0000**	**60.7859**

9.0 Operational Offroad

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

10.0 Vegetation

Online Ordering Grocery Store Project

San Francisco Bay Area Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	45.00	Space	0.41	18,000.00	0
Fast Food Restaurant with Drive Thru	11.60	1000sqft	1.19	11,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2018
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - apprx 1.6 acres based on site plans

Construction Phase - construction sched provided by client

Off-road Equipment -

Off-road Equipment - info provided by client

Off-road Equipment - info provided by client

Off-road Equipment - info provided by client

Off-road Equipment -

Off-road Equipment - info provided by client

Trips and VMT - client provided data

Demolition - existing wood yard building to be demolished

Grading - apprx 1.6 acres based on site plans

Architectural Coating - use of low VOC paint

Vehicle Trips -

Area Coating - use of low VOC paint

Construction Off-road Equipment Mitigation - Tier 3 mitigation

Area Mitigation - use of low VOC paint

Energy Mitigation - 2013 exceeds 2008 T24 by 25%

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	150
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
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tblConstEquipMitigation	Tier	No Change	Tier 3
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tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	10.00	16.00
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tblConstructionPhase	NumDays	20.00	25.00
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tblConstructionPhase	NumDays	2.00	3.00
tblConstructionPhase	PhaseEndDate	12/5/2016	1/30/2017
tblConstructionPhase	PhaseEndDate	10/31/2016	10/28/2016
tblConstructionPhase	PhaseEndDate	10/3/2016	9/30/2016
tblConstructionPhase	PhaseStartDate	11/12/2016	1/9/2017
tblConstructionPhase	PhaseStartDate	10/1/2016	9/30/2016
tblConstructionPhase	PhaseStartDate	9/22/2016	9/21/2016
tblConstructionPhase	PhaseStartDate	10/29/2016	10/31/2016
tblConstructionPhase	PhaseStartDate	9/17/2016	9/19/2016
tblGrading	AcresOfGrading	3.00	1.60
tblGrading	AcresOfGrading	1.50	0.00
tblGrading	MaterialExported	0.00	1,200.00
tblGrading	MaterialImported	0.00	2,400.00
tblLandUse	LotAcreage	0.27	1.19
tblOffRoadEquipment	HorsePower	81.00	5.00
tblOffRoadEquipment	HorsePower	226.00	410.00
tblOffRoadEquipment	HorsePower	89.00	100.00
tblOffRoadEquipment	HorsePower	255.00	97.00
tblOffRoadEquipment	HorsePower	97.00	87.00
tblOffRoadEquipment	HorsePower	46.00	15.00
tblOffRoadEquipment	HorsePower	162.00	239.00
tblOffRoadEquipment	HorsePower	162.00	200.00

tblOffRoadEquipment	HorsePower	122.00	171.00
tblOffRoadEquipment	HorsePower	122.00	174.00
tblOffRoadEquipment	HorsePower	122.00	119.00
tblOffRoadEquipment	HorsePower	400.00	410.00
tblOffRoadEquipment	HorsePower	64.00	68.00
tblOffRoadEquipment	LoadFactor	0.40	0.37
tblOffRoadEquipment	LoadFactor	0.38	0.40
tblOffRoadEquipment	LoadFactor	0.44	0.42
tblOffRoadEquipment	LoadFactor	0.44	0.41
tblOffRoadEquipment	LoadFactor	0.37	0.41
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	6.00	1.00
tblOffRoadEquipment	UsageHours	6.00	5.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblProjectCharacteristics	OperationalYear	2014	2018
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripNumber	35.00	3.00
tblTripsAndVMT	HaulingTripNumber	0.00	20.00
tblTripsAndVMT	HaulingTripNumber	356.00	20.00
tblTripsAndVMT	VendorTripLength	7.30	20.00
tblTripsAndVMT	VendorTripLength	7.30	25.00

tblTripsAndVMT	VendorTripLength	7.30	25.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	5.00	6.00
tblTripsAndVMT	WorkerTripLength	12.40	20.00
tblTripsAndVMT	WorkerTripLength	12.40	15.00
tblTripsAndVMT	WorkerTripLength	12.40	15.00
tblTripsAndVMT	WorkerTripNumber	20.00	2.00
tblTripsAndVMT	WorkerTripNumber	10.00	4.00
tblTripsAndVMT	WorkerTripNumber	20.00	6.00
tblTripsAndVMT	WorkerTripNumber	12.00	20.00
tblVehicleTrips	ST_TR	722.03	102.30
tblVehicleTrips	SU_TR	542.72	102.30
tblVehicleTrips	WD_TR	496.12	102.30

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	6.6891	71.6757	46.5626	0.0635	10.2374	3.7438	13.9812	5.4671	3.4442	8.9114	0.0000	6,560.1199	6,560.1199	1.7993	0.0000	6,597.9049
2017	10.8900	2.1937	1.9696	3.2000e-003	0.0189	0.1735	0.1923	5.0000e-003	0.1735	0.1785	0.0000	300.2022	300.2022	0.0306	0.0000	300.8453
Total	**17.5791**	**73.8694**	**48.5321**	**0.0667**	**10.2563**	**3.9172**	**14.1735**	**5.4721**	**3.6177**	**9.0898**	**0.0000**	**6,860.3221**	**6,860.3221**	**1.8299**	**0.0000**	**6,898.7502**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	1.5510	27.6621	39.0761	0.0635	4.7385	1.3166	6.0552	2.4960	1.3143	3.8103	0.0000	6,560.1199	6,560.1199	1.7993	0.0000	6,597.9049
2017	10.6171	1.3657	1.9339	3.2000e-003	0.0189	0.0952	0.1141	5.0000e-003	0.0952	0.1002	0.0000	300.2022	300.2022	0.0306	0.0000	300.8453
Total	**12.1681**	**29.0278**	**41.0100**	**0.0667**	**4.7574**	**1.4119**	**6.1692**	**2.5010**	**1.4095**	**3.9105**	**0.0000**	**6,860.3221**	**6,860.3221**	**1.8299**	**0.0000**	**6,898.7502**

	ROG	NOx	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	**30.78**	**60.70**	**15.50**	**0.00**	**53.61**	**63.96**	**56.47**	**54.30**	**61.04**	**56.98**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.7034	5.0000e-005	5.8600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0124	0.0124	3.0000e-005		0.0131
Energy	0.0723	0.6576	0.5523	3.9500e-003		0.0500	0.0500		0.0500	0.0500		789.0617	789.0617	0.0151	0.0145	793.8638
Mobile	3.1055	4.1078	19.9340	0.0362	2.3547	0.0518	2.4064	0.6299	0.0477	0.6776		2,972.0209	2,972.0209	0.1259		2,974.6645
Total	**3.8812**	**4.7654**	**20.4922**	**0.0402**	**2.3547**	**0.1018**	**2.4564**	**0.6299**	**0.0977**	**0.7276**		**3,761.0950**	**3,761.0950**	**0.1410**	**0.0145**	**3,768.5414**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.6803	5.0000e-005	5.8600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0124	0.0124	3.0000e-005		0.0131
Energy	0.0669	0.6080	0.5108	3.6500e-003		0.0462	0.0462		0.0462	0.0462		729.6409	729.6409	0.0140	0.0134	734.0814
Mobile	3.1055	4.1078	19.9340	0.0362	2.3547	0.0518	2.4064	0.6299	0.0477	0.6776		2,972.0209	2,972.0209	0.1259		2,974.6645
Total	**3.8526**	**4.7159**	**20.4506**	**0.0399**	**2.3547**	**0.0980**	**2.4527**	**0.6299**	**0.0939**	**0.7238**		**3,701.6742**	**3,701.6742**	**0.1399**	**0.0134**	**3,708.7590**

	ROG	NOx	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	0.74	1.04	0.20	0.75	0.00	3.70	0.15	0.00	3.85	0.52	0.00	1.58	1.58	0.81	7.53	1.59

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	8/15/2016	9/16/2016	5	25	
2	Site Preparation	Site Preparation	9/19/2016	9/21/2016	5	3	
3	Grading	Grading	9/21/2016	9/30/2016	5	8	
4	Building Construction	Building Construction	9/30/2016	10/28/2016	5	21	
5	Paving	Paving	10/31/2016	11/11/2016	5	10	
6	Architectural Coating	Architectural Coating	1/9/2017	1/30/2017	5	16	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.6

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 18,210; Non-Residential Outdoor: 6,070 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	6.00	5	0.73
Demolition	Excavators	1	7.00	239	0.40
Demolition	Off-Highway Tractors	0		171	0.42
Demolition	Rubber Tired Dozers	3	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37

Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Off-Highway Tractors	1	8.00	174	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Excavators	1	7.00	200	0.38
Grading	Graders	1	6.00	174	0.41
Grading	Off-Highway Tractors	1	6.00	119	0.44
Grading	Off-Highway Trucks	1	4.00	410	0.38
Grading	Rubber Tired Dozers	1	6.00	255	0.40
Grading	Skid Steer Loaders	1	7.00	68	0.41
Grading	Tractors/Loaders/Backhoes	2	7.00	87	0.37
Building Construction	Cranes	1	1.00	410	0.29
Building Construction	Forklifts	2	5.00	100	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Off-Highway Tractors	0		122	0.44
Building Construction	Skid Steer Loaders	0		64	0.37
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	1	5.00	15	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	125	0.42
Paving	Paving Equipment	1	8.00	130	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	8	2.00	1.00	3.00	20.00	20.00	10.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	4	4.00	1.00	20.00	15.00	25.00	10.00	LD_Mix	HDT_Mix	HHDT
Grading	8	6.00	1.00	20.00	15.00	25.00	10.00	LD_Mix	HDT_Mix	HHDT
Building Construction	6	20.00	6.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2992	0.0000	0.2992	0.0453	0.0000	0.0453			0.0000			0.0000
Off-Road	1.4086	15.1758	9.1226	0.0165		0.9227	0.9227		0.8489	0.8489		1,718.3531	1,718.3531	0.5183		1,729.2378
Total	**1.4086**	**15.1758**	**9.1226**	**0.0165**	**0.2992**	**0.9227**	**1.2219**	**0.0453**	**0.8489**	**0.8942**		**1,718.3531**	**1,718.3531**	**0.5183**		**1,729.2378**

3.2 Demolition - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.9000e-003	0.0186	0.0213	5.0000e-005	1.0500e-003	2.4000e-004	1.2800e-003	2.9000e-004	2.2000e-004	5.0000e-004		4.6523	4.6523	4.0000e-005		4.6530
Vendor	0.0178	0.2291	0.1553	6.2000e-004	0.0182	3.9600e-003	0.0221	5.1800e-003	3.6400e-003	8.8300e-003		62.3697	62.3697	4.6000e-004		62.3794
Worker	9.7100e-003	0.0151	0.1759	3.7000e-004	0.0304	2.3000e-004	0.0306	8.0600e-003	2.1000e-004	8.2800e-003		31.1554	31.1554	1.5700e-003		31.1883
Total	**0.0295**	**0.2628**	**0.3525**	**1.0400e-003**	**0.0496**	**4.4300e-003**	**0.0541**	**0.0135**	**4.0700e-003**	**0.0176**		**98.1773**	**98.1773**	**2.0700e-003**		**98.2206**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1347	0.0000	0.1347	0.0204	0.0000	0.0204			0.0000			0.0000
Off-Road	0.3164	5.5868	10.2719	0.0165		0.3764	0.3764		0.3764	0.3764	0.0000	1,718.3531	1,718.3531	0.5183		1,729.2378
Total	**0.3164**	**5.5868**	**10.2719**	**0.0165**	**0.1347**	**0.3764**	**0.5111**	**0.0204**	**0.3764**	**0.3968**	**0.0000**	**1,718.3531**	**1,718.3531**	**0.5183**		**1,729.2378**

3.2 Demolition - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.9000e-003	0.0186	0.0213	5.0000e-005	1.0500e-003	2.4000e-004	1.2800e-003	2.9000e-004	2.2000e-004	5.0000e-004		4.6523	4.6523	4.0000e-005		4.6530
Vendor	0.0178	0.2291	0.1553	6.2000e-004	0.0182	3.9600e-003	0.0221	5.1800e-003	3.6400e-003	8.8300e-003		62.3697	62.3697	4.6000e-004		62.3794
Worker	9.7100e-003	0.0151	0.1759	3.7000e-004	0.0304	2.3000e-004	0.0306	8.0600e-003	2.1000e-004	8.2800e-003		31.1554	31.1554	1.5700e-003		31.1883
Total	**0.0295**	**0.2628**	**0.3525**	**1.0400e-003**	**0.0496**	**4.4300e-003**	**0.0541**	**0.0135**	**4.0700e-003**	**0.0176**		**98.1773**	**98.1773**	**2.0700e-003**		**98.2206**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.2693	0.0000	5.2693	2.8965	0.0000	2.8965			0.0000			0.0000
Off-Road	2.8921	31.0407	20.3374	0.0229		1.6552	1.6552		1.5228	1.5228		2,379.3382	2,379.3382	0.7177		2,394.4098
Total	**2.8921**	**31.0407**	**20.3374**	**0.0229**	**5.2693**	**1.6552**	**6.9246**	**2.8965**	**1.5228**	**4.4193**		**2,379.3382**	**2,379.3382**	**0.7177**		**2,394.4098**

3.3 Site Preparation - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1056	1.0354	1.1815	2.5700e-003	0.0582	0.0132	0.0713	0.0159	0.0121	0.0280		258.4591	258.4591	2.0300e-003		258.5018
Vendor	0.0204	0.2811	0.1709	7.7000e-004	0.0227	4.9400e-003	0.0276	6.4800e-003	4.5400e-003	0.0110		77.5092	77.5092	5.7000e-004		77.5211
Worker	0.0173	0.0231	0.2697	5.6000e-004	0.0456	3.6000e-004	0.0460	0.0121	3.3000e-004	0.0124		46.9674	46.9674	2.3900e-003		47.0176
Total	**0.1433**	**1.3396**	**1.6221**	**3.9000e-003**	**0.1265**	**0.0185**	**0.1449**	**0.0345**	**0.0170**	**0.0515**		**382.9358**	**382.9358**	**4.9900e-003**		**383.0404**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.3712	0.0000	2.3712	1.3034	0.0000	1.3034			0.0000			0.0000
Off-Road	0.5573	11.0077	15.4528	0.0229		0.5267	0.5267		0.5267	0.5267	0.0000	2,379.3382	2,379.3382	0.7177		2,394.4097
Total	**0.5573**	**11.0077**	**15.4528**	**0.0229**	**2.3712**	**0.5267**	**2.8979**	**1.3034**	**0.5267**	**1.8301**	**0.0000**	**2,379.3382**	**2,379.3382**	**0.7177**		**2,394.4097**

3.3 Site Preparation - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1056	1.0354	1.1815	2.5700e-003	0.0582	0.0132	0.0713	0.0159	0.0121	0.0280		258.4591	258.4591	2.0300e-003		258.5018
Vendor	0.0204	0.2811	0.1709	7.7000e-004	0.0227	4.9400e-003	0.0276	6.4800e-003	4.5400e-003	0.0110		77.5092	77.5092	5.7000e-004		77.5211
Worker	0.0173	0.0231	0.2697	5.6000e-004	0.0456	3.6000e-004	0.0460	0.0121	3.3000e-004	0.0124		46.9674	46.9674	2.3900e-003		47.0176
Total	**0.1433**	**1.3396**	**1.6221**	**3.9000e-003**	**0.1265**	**0.0185**	**0.1449**	**0.0345**	**0.0170**	**0.0515**		**382.9358**	**382.9358**	**4.9900e-003**		**383.0404**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.7287	0.0000	4.7287	2.5056	0.0000	2.5056			0.0000			0.0000
Off-Road	3.5677	38.5914	23.5846	0.0342		2.0597	2.0597		1.8949	1.8949		3,552.9635	3,552.9635	1.0717		3,575.4691
Total	**3.5677**	**38.5914**	**23.5846**	**0.0342**	**4.7287**	**2.0597**	**6.7883**	**2.5056**	**1.8949**	**4.4005**		**3,552.9635**	**3,552.9635**	**1.0717**		**3,575.4691**

3.4 Grading - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0396	0.3883	0.4431	9.6000e-004	0.0218	4.9400e-003	0.0267	5.9700e-003	4.5400e-003	0.0105		96.9222	96.9222	7.6000e-004		96.9382
Vendor	0.0204	0.2811	0.1709	7.7000e-004	0.0227	4.9400e-003	0.0276	6.4800e-003	4.5400e-003	0.0110		77.5092	77.5092	5.7000e-004		77.5211
Worker	0.0260	0.0346	0.4046	8.4000e-004	0.0684	5.4000e-004	0.0690	0.0182	5.0000e-004	0.0186		70.4512	70.4512	3.5800e-003		70.5263
Total	**0.0860**	**0.7040**	**1.0185**	**2.5700e-003**	**0.1130**	**0.0104**	**0.1234**	**0.0306**	**9.5800e-003**	**0.0402**		**244.8825**	**244.8825**	**4.9100e-003**		**244.9856**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.1279	0.0000	2.1279	1.1275	0.0000	1.1275			0.0000			0.0000
Off-Road	0.7644	14.6109	20.9827	0.0342		0.7611	0.7611		0.7611	0.7611	0.0000	3,552.9634	3,552.9634	1.0717		3,575.4691
Total	**0.7644**	**14.6109**	**20.9827**	**0.0342**	**2.1279**	**0.7611**	**2.8890**	**1.1275**	**0.7611**	**1.8886**	**0.0000**	**3,552.9634**	**3,552.9634**	**1.0717**		**3,575.4691**

3.4 Grading - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0396	0.3883	0.4431	9.6000e-004	0.0218	4.9400e-003	0.0267	5.9700e-003	4.5400e-003	0.0105		96.9222	96.9222	7.6000e-004		96.9382
Vendor	0.0204	0.2811	0.1709	7.7000e-004	0.0227	4.9400e-003	0.0276	6.4800e-003	4.5400e-003	0.0110		77.5092	77.5092	5.7000e-004		77.5211
Worker	0.0260	0.0346	0.4046	8.4000e-004	0.0684	5.4000e-004	0.0690	0.0182	5.0000e-004	0.0186		70.4512	70.4512	3.5800e-003		70.5263
Total	**0.0860**	**0.7040**	**1.0185**	**2.5700e-003**	**0.1130**	**0.0104**	**0.1234**	**0.0306**	**9.5800e-003**	**0.0402**		**244.8825**	**244.8825**	**4.9100e-003**		**244.9856**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3896	11.8739	8.6611	0.0129		0.8388	0.8388		0.8005	0.8005		1,263.6622	1,263.6622	0.2429		1,268.7635
Total	**1.3896**	**11.8739**	**8.6611**	**0.0129**		**0.8388**	**0.8388**		**0.8005**	**0.8005**		**1,263.6622**	**1,263.6622**	**0.2429**		**1,268.7635**

3.5 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0678	0.5815	0.6938	1.4300e-003	0.0399	8.9300e-003	0.0488	0.0114	8.2100e-003	0.0196		143.4918	143.4918	1.1400e-003		143.5157
Worker	0.0811	0.0971	1.1352	2.3200e-003	0.1886	1.5200e-003	0.1901	0.0500	1.3900e-003	0.0514		194.9446	194.9446	0.0100		195.1545
Total	**0.1490**	**0.6786**	**1.8290**	**3.7500e-003**	**0.2285**	**0.0105**	**0.2389**	**0.0614**	**9.6000e-003**	**0.0710**		**338.4364**	**338.4364**	**0.0111**		**338.6703**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2729	6.1210	8.1259	0.0129		0.4094	0.4094		0.4094	0.4094	0.0000	1,263.6622	1,263.6622	0.2429		1,268.7635
Total	**0.2729**	**6.1210**	**8.1259**	**0.0129**		**0.4094**	**0.4094**		**0.4094**	**0.4094**	**0.0000**	**1,263.6622**	**1,263.6622**	**0.2429**		**1,268.7635**

3.5 Building Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0678	0.5815	0.6938	1.4300e-003	0.0399	8.9300e-003	0.0488	0.0114	8.2100e-003	0.0196		143.4918	143.4918	1.1400e-003		143.5157
Worker	0.0811	0.0971	1.1352	2.3200e-003	0.1886	1.5200e-003	0.1901	0.0500	1.3900e-003	0.0514		194.9446	194.9446	0.0100		195.1545
Total	**0.1490**	**0.6786**	**1.8290**	**3.7500e-003**	**0.2285**	**0.0105**	**0.2389**	**0.0614**	**9.6000e-003**	**0.0710**		**338.4364**	**338.4364**	**0.0111**		**338.6703**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2872	13.2076	9.0880	0.0133		0.8075	0.8075		0.7438	0.7438		1,368.4366	1,368.4366	0.4053		1,376.9473
Paving	0.1074					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3946**	**13.2076**	**9.0880**	**0.0133**		**0.8075**	**0.8075**		**0.7438**	**0.7438**		**1,368.4366**	**1,368.4366**	**0.4053**		**1,376.9473**

3.6 Paving - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0527	0.0631	0.7379	1.5100e-003	0.1226	9.9000e-004	0.1236	0.0325	9.0000e-004	0.0334		126.7140	126.7140	6.5000e-003		126.8504
Total	**0.0527**	**0.0631**	**0.7379**	**1.5100e-003**	**0.1226**	**9.9000e-004**	**0.1236**	**0.0325**	**9.0000e-004**	**0.0334**		**126.7140**	**126.7140**	**6.5000e-003**		**126.8504**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3146	6.5459	9.7014	0.0133		0.3818	0.3818		0.3818	0.3818	0.0000	1,368.4366	1,368.4366	0.4053		1,376.9473
Paving	0.1074					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.4221**	**6.5459**	**9.7014**	**0.0133**		**0.3818**	**0.3818**		**0.3818**	**0.3818**	**0.0000**	**1,368.4366**	**1,368.4366**	**0.4053**		**1,376.9473**

3.6 Paving - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0527	0.0631	0.7379	1.5100e-003	0.1226	9.9000e-004	0.1236	0.0325	9.0000e-004	0.0334		126.7140	126.7140	6.5000e-003		126.8504
Total	**0.0527**	**0.0631**	**0.7379**	**1.5100e-003**	**0.1226**	**9.9000e-004**	**0.1236**	**0.0325**	**9.0000e-004**	**0.0334**		**126.7140**	**126.7140**	**6.5000e-003**		**126.8504**

3.7 Architectural Coating - 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	lb/day										lb/day					
Archit. Coating	10.5504					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721
Total	**10.8827**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**		**281.4481**	**281.4481**	**0.0297**		**282.0721**

3.7 Architectural Coating - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	7.2500e-003	8.7000e-003	0.1015	2.3000e-004	0.0189	1.4000e-004	0.0190	5.0000e-003	1.3000e-004	5.1400e-003		18.7541	18.7541	9.1000e-004		18.7733
Total	**7.2500e-003**	**8.7000e-003**	**0.1015**	**2.3000e-004**	**0.0189**	**1.4000e-004**	**0.0190**	**5.0000e-003**	**1.3000e-004**	**5.1400e-003**		**18.7541**	**18.7541**	**9.1000e-004**		**18.7733**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	10.5504					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0297		282.0721
Total	**10.6099**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0297**		**282.0721**

3.7 Architectural Coating - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	7.2500e-003	8.7000e-003	0.1015	2.3000e-004	0.0189	1.4000e-004	0.0190	5.0000e-003	1.3000e-004	5.1400e-003		18.7541	18.7541	9.1000e-004		18.7733
Total	**7.2500e-003**	**8.7000e-003**	**0.1015**	**2.3000e-004**	**0.0189**	**1.4000e-004**	**0.0190**	**5.0000e-003**	**1.3000e-004**	**5.1400e-003**		**18.7541**	**18.7541**	**9.1000e-004**		**18.7733**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.1055	4.1078	19.9340	0.0362	2.3547	0.0518	2.4064	0.6299	0.0477	0.6776		2,972.0209	2,972.0209	0.1259		2,974.6645
Unmitigated	3.1055	4.1078	19.9340	0.0362	2.3547	0.0518	2.4064	0.6299	0.0477	0.6776		2,972.0209	2,972.0209	0.1259		2,974.6645

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	1,186.68	1,186.68	1186.68	1,108,745	1,108,745
Parking Lot	0.00	0.00	0.00		
Total	1,186.68	1,186.68	1,186.68	1,108,745	1,108,745

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	9.50	7.30	7.30	2.20	78.80	19.00	29	21	50
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.546229	0.063048	0.174586	0.122573	0.033968	0.004845	0.015596	0.024745	0.002089	0.003270	0.006707	0.000678	0.001667

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0669	0.6080	0.5108	3.6500e-003		0.0462	0.0462		0.0462	0.0462		729.6409	729.6409	0.0140	0.0134	734.0814
NaturalGas Unmitigated	0.0723	0.6576	0.5523	3.9500e-003		0.0500	0.0500		0.0500	0.0500		789.0617	789.0617	0.0151	0.0145	793.8638

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
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
Fast Food Restaurant with Drive Thru	6707.02	0.0723	0.6576	0.5523	3.9500e-003		0.0500	0.0500		0.0500	0.0500		789.0617	789.0617	0.0151	0.0145	793.8638
Total		**0.0723**	**0.6576**	**0.5523**	**3.9500e-003**		**0.0500**	**0.0500**		**0.0500**	**0.0500**		**789.0617**	**789.0617**	**0.0151**	**0.0145**	**793.8638**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Fast Food Restaurant with Drive Thru	6.20195	0.0669	0.6080	0.5108	3.6500e-003		0.0462	0.0462		0.0462	0.0462		729.6409	729.6409	0.0140	0.0134	734.0814
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
Total		**0.0669**	**0.6080**	**0.5108**	**3.6500e-003**		**0.0462**	**0.0462**		**0.0462**	**0.0462**		**729.6409**	**729.6409**	**0.0140**	**0.0134**	**734.0814**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.6803	5.0000e-005	5.8600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0124	0.0124	3.0000e-005		0.0131
Unmitigated	0.7034	5.0000e-005	5.8600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0124	0.0124	3.0000e-005		0.0131

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0694					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.6334					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.6000e-004	5.0000e-005	5.8600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0124	0.0124	3.0000e-005		0.0131
Total	**0.7034**	**5.0000e-005**	**5.8600e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**0.0124**	**0.0124**	**3.0000e-005**		**0.0131**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0463					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.6334					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.6000e-004	5.0000e-005	5.8600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0124	0.0124	3.0000e-005		0.0131
Total	**0.6803**	**5.0000e-005**	**5.8600e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**0.0124**	**0.0124**	**3.0000e-005**		**0.0131**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Vegetation

Online Ordering Grocery Store Project

San Francisco Bay Area Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	45.00	Space	0.41	18,000.00	0
Fast Food Restaurant with Drive Thru	11.60	1000sqft	1.19	11,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2018
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - apprx 1.6 acres based on site plans

Construction Phase - construction sched provided by client

Off-road Equipment -

Off-road Equipment - info provided by client

Off-road Equipment - info provided by client

Off-road Equipment - info provided by client

Off-road Equipment -

Off-road Equipment - info provided by client

Trips and VMT - client provided data

Demolition - existing wood yard building to be demolished

Grading - apprx 1.6 acres based on site plans

Architectural Coating - use of low VOC paint

Vehicle Trips -

Area Coating - use of low VOC paint

Construction Off-road Equipment Mitigation - Tier 3 mitigation

Area Mitigation - use of low VOC paint

Energy Mitigation - 2013 exceeds 2008 T24 by 25%

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	150
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
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tblConstEquipMitigation	Tier	No Change	Tier 3
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstructionPhase	NumDays	2.00	3.00
tblConstructionPhase	PhaseEndDate	12/5/2016	1/30/2017
tblConstructionPhase	PhaseEndDate	10/31/2016	10/28/2016
tblConstructionPhase	PhaseEndDate	10/3/2016	9/30/2016
tblConstructionPhase	PhaseStartDate	11/12/2016	1/9/2017
tblConstructionPhase	PhaseStartDate	10/1/2016	9/30/2016
tblConstructionPhase	PhaseStartDate	9/22/2016	9/21/2016
tblConstructionPhase	PhaseStartDate	10/29/2016	10/31/2016
tblConstructionPhase	PhaseStartDate	9/17/2016	9/19/2016
tblGrading	AcresOfGrading	3.00	1.60
tblGrading	AcresOfGrading	1.50	0.00
tblGrading	MaterialExported	0.00	1,200.00
tblGrading	MaterialImported	0.00	2,400.00
tblLandUse	LotAcreage	0.27	1.19
tblOffRoadEquipment	HorsePower	81.00	5.00
tblOffRoadEquipment	HorsePower	226.00	410.00
tblOffRoadEquipment	HorsePower	89.00	100.00
tblOffRoadEquipment	HorsePower	255.00	97.00
tblOffRoadEquipment	HorsePower	97.00	87.00
tblOffRoadEquipment	HorsePower	46.00	15.00
tblOffRoadEquipment	HorsePower	162.00	239.00
tblOffRoadEquipment	HorsePower	162.00	200.00

tblOffRoadEquipment	HorsePower	122.00	171.00
tblOffRoadEquipment	HorsePower	122.00	174.00
tblOffRoadEquipment	HorsePower	122.00	119.00
tblOffRoadEquipment	HorsePower	400.00	410.00
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tblOffRoadEquipment	LoadFactor	0.40	0.37
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tblOffRoadEquipment	LoadFactor	0.44	0.42
tblOffRoadEquipment	LoadFactor	0.44	0.41
tblOffRoadEquipment	LoadFactor	0.37	0.41
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	UsageHours	8.00	6.00
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tblOffRoadEquipment	UsageHours	6.00	5.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblProjectCharacteristics	OperationalYear	2014	2018
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripNumber	35.00	3.00
tblTripsAndVMT	HaulingTripNumber	0.00	20.00
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tblTripsAndVMT	VendorTripLength	7.30	20.00
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tblTripsAndVMT	VendorTripLength	7.30	25.00
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tblTripsAndVMT	WorkerTripNumber	20.00	6.00
tblTripsAndVMT	WorkerTripNumber	12.00	20.00
tblVehicleTrips	ST_TR	722.03	102.30
tblVehicleTrips	SU_TR	542.72	102.30
tblVehicleTrips	WD_TR	496.12	102.30

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	6.7352	71.7940	47.5226	0.0634	10.2374	3.7439	13.9813	5.4671	3.4444	8.9115	0.0000	6,549.0302	6,549.0302	1.7994	0.0000	6,586.8167
2017	10.8900	2.1958	1.9664	3.1900e-003	0.0189	0.1735	0.1923	5.0000e-003	0.1735	0.1785	0.0000	298.7500	298.7500	0.0306	0.0000	299.3932
Total	**17.6251**	**73.9897**	**49.4890**	**0.0666**	**10.2563**	**3.9174**	**14.1736**	**5.4721**	**3.6178**	**9.0899**	**0.0000**	**6,847.7802**	**6,847.7802**	**1.8300**	**0.0000**	**6,886.2099**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	1.5970	27.7804	40.0361	0.0634	4.7385	1.3168	6.0553	2.4960	1.3144	3.8104	0.0000	6,549.0302	6,549.0302	1.7994	0.0000	6,586.8167
2017	10.6171	1.3677	1.9307	3.1900e-003	0.0189	0.0952	0.1141	5.0000e-003	0.0952	0.1002	0.0000	298.7500	298.7500	0.0306	0.0000	299.3932
Total	**12.2141**	**29.1481**	**41.9668**	**0.0666**	**4.7574**	**1.4120**	**6.1694**	**2.5010**	**1.4097**	**3.9107**	**0.0000**	**6,847.7802**	**6,847.7802**	**1.8300**	**0.0000**	**6,886.2099**

	ROG	NOx	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	**30.70**	**60.61**	**15.20**	**0.00**	**53.61**	**63.96**	**56.47**	**54.30**	**61.04**	**56.98**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.7034	5.0000e-005	5.8600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0124	0.0124	3.0000e-005		0.0131
Energy	0.0723	0.6576	0.5523	3.9500e-003		0.0500	0.0500		0.0500	0.0500		789.0617	789.0617	0.0151	0.0145	793.8638
Mobile	3.2952	4.5298	26.5315	0.0341	2.3547	0.0523	2.4070	0.6299	0.0482	0.6781		2,798.7374	2,798.7374	0.1262		2,801.3869
Total	**4.0709**	**5.1874**	**27.0897**	**0.0381**	**2.3547**	**0.1023**	**2.4570**	**0.6299**	**0.0982**	**0.7281**		**3,587.8115**	**3,587.8115**	**0.1413**	**0.0145**	**3,595.2638**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.6803	5.0000e-005	5.8600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0124	0.0124	3.0000e-005		0.0131
Energy	0.0669	0.6080	0.5108	3.6500e-003		0.0462	0.0462		0.0462	0.0462		729.6409	729.6409	0.0140	0.0134	734.0814
Mobile	3.2952	4.5298	26.5315	0.0341	2.3547	0.0523	2.4070	0.6299	0.0482	0.6781		2,798.7374	2,798.7374	0.1262		2,801.3869
Total	**4.0423**	**5.1379**	**27.0481**	**0.0378**	**2.3547**	**0.0986**	**2.4532**	**0.6299**	**0.0944**	**0.7243**		**3,528.3908**	**3,528.3908**	**0.1402**	**0.0134**	**3,535.4814**

	ROG	NOx	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	0.70	0.95	0.15	0.79	0.00	3.67	0.15	0.00	3.83	0.52	0.00	1.66	1.66	0.81	7.53	1.66

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	8/15/2016	9/16/2016	5	25	
2	Site Preparation	Site Preparation	9/19/2016	9/21/2016	5	3	
3	Grading	Grading	9/21/2016	9/30/2016	5	8	
4	Building Construction	Building Construction	9/30/2016	10/28/2016	5	21	
5	Paving	Paving	10/31/2016	11/11/2016	5	10	
6	Architectural Coating	Architectural Coating	1/9/2017	1/30/2017	5	16	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.6

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 18,210; Non-Residential Outdoor: 6,070 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	6.00	5	0.73
Demolition	Excavators	1	7.00	239	0.40
Demolition	Off-Highway Tractors	0		171	0.42
Demolition	Rubber Tired Dozers	3	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37

Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Off-Highway Tractors	1	8.00	174	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Excavators	1	7.00	200	0.38
Grading	Graders	1	6.00	174	0.41
Grading	Off-Highway Tractors	1	6.00	119	0.44
Grading	Off-Highway Trucks	1	4.00	410	0.38
Grading	Rubber Tired Dozers	1	6.00	255	0.40
Grading	Skid Steer Loaders	1	7.00	68	0.41
Grading	Tractors/Loaders/Backhoes	2	7.00	87	0.37
Building Construction	Cranes	1	1.00	410	0.29
Building Construction	Forklifts	2	5.00	100	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Off-Highway Tractors	0		122	0.44
Building Construction	Skid Steer Loaders	0		64	0.37
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	1	5.00	15	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	125	0.42
Paving	Paving Equipment	1	8.00	130	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	8	2.00	1.00	3.00	20.00	20.00	10.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	4	4.00	1.00	20.00	15.00	25.00	10.00	LD_Mix	HDT_Mix	HHDT
Grading	8	6.00	1.00	20.00	15.00	25.00	10.00	LD_Mix	HDT_Mix	HHDT
Building Construction	6	20.00	6.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2992	0.0000	0.2992	0.0453	0.0000	0.0453			0.0000			0.0000
Off-Road	1.4086	15.1758	9.1226	0.0165		0.9227	0.9227		0.8489	0.8489		1,718.3531	1,718.3531	0.5183		1,729.2378
Total	**1.4086**	**15.1758**	**9.1226**	**0.0165**	**0.2992**	**0.9227**	**1.2219**	**0.0453**	**0.8489**	**0.8942**		**1,718.3531**	**1,718.3531**	**0.5183**		**1,729.2378**

3.2 Demolition - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.4200e-003	0.0196	0.0325	5.0000e-005	1.0500e-003	2.4000e-004	1.2800e-003	2.9000e-004	2.2000e-004	5.1000e-004		4.6311	4.6311	4.0000e-005		4.6318
Vendor	0.0209	0.2415	0.2189	6.2000e-004	0.0182	3.9800e-003	0.0222	5.1800e-003	3.6600e-003	8.8400e-003		62.1868	62.1868	4.6000e-004		62.1966
Worker	9.7100e-003	0.0186	0.1664	3.4000e-004	0.0304	2.3000e-004	0.0306	8.0600e-003	2.1000e-004	8.2800e-003		28.7317	28.7317	1.5700e-003		28.7646
Total	**0.0330**	**0.2797**	**0.4178**	**1.0100e-003**	**0.0496**	**4.4500e-003**	**0.0541**	**0.0135**	**4.0900e-003**	**0.0176**		**95.5496**	**95.5496**	**2.0700e-003**		**95.5930**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1347	0.0000	0.1347	0.0204	0.0000	0.0204			0.0000			0.0000
Off-Road	0.3164	5.5868	10.2719	0.0165		0.3764	0.3764		0.3764	0.3764	0.0000	1,718.3531	1,718.3531	0.5183		1,729.2378
Total	**0.3164**	**5.5868**	**10.2719**	**0.0165**	**0.1347**	**0.3764**	**0.5111**	**0.0204**	**0.3764**	**0.3968**	**0.0000**	**1,718.3531**	**1,718.3531**	**0.5183**		**1,729.2378**

3.2 Demolition - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.4200e-003	0.0196	0.0325	5.0000e-005	1.0500e-003	2.4000e-004	1.2800e-003	2.9000e-004	2.2000e-004	5.1000e-004		4.6311	4.6311	4.0000e-005		4.6318
Vendor	0.0209	0.2415	0.2189	6.2000e-004	0.0182	3.9800e-003	0.0222	5.1800e-003	3.6600e-003	8.8400e-003		62.1868	62.1868	4.6000e-004		62.1966
Worker	9.7100e-003	0.0186	0.1664	3.4000e-004	0.0304	2.3000e-004	0.0306	8.0600e-003	2.1000e-004	8.2800e-003		28.7317	28.7317	1.5700e-003		28.7646
Total	**0.0330**	**0.2797**	**0.4178**	**1.0100e-003**	**0.0496**	**4.4500e-003**	**0.0541**	**0.0135**	**4.0900e-003**	**0.0176**		**95.5496**	**95.5496**	**2.0700e-003**		**95.5930**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.2693	0.0000	5.2693	2.8965	0.0000	2.8965			0.0000			0.0000
Off-Road	2.8921	31.0407	20.3374	0.0229		1.6552	1.6552		1.5228	1.5228		2,379.3382	2,379.3382	0.7177		2,394.4098
Total	**2.8921**	**31.0407**	**20.3374**	**0.0229**	**5.2693**	**1.6552**	**6.9246**	**2.8965**	**1.5228**	**4.4193**		**2,379.3382**	**2,379.3382**	**0.7177**		**2,394.4098**

3.3 Site Preparation - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1346	1.0889	1.8053	2.5700e-003	0.0582	0.0132	0.0714	0.0159	0.0122	0.0281		257.2808	257.2808	2.0800e-003		257.3245
Vendor	0.0234	0.2966	0.2344	7.7000e-004	0.0227	4.9500e-003	0.0277	6.4800e-003	4.5600e-003	0.0110		77.3263	77.3263	5.7000e-004		77.3383
Worker	0.0174	0.0286	0.2598	5.2000e-004	0.0456	3.6000e-004	0.0460	0.0121	3.3000e-004	0.0124		43.3259	43.3259	2.3900e-003		43.3760
Total	**0.1754**	**1.4141**	**2.2995**	**3.8600e-003**	**0.1265**	**0.0186**	**0.1450**	**0.0345**	**0.0171**	**0.0516**		**377.9331**	**377.9331**	**5.0400e-003**		**378.0388**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.3712	0.0000	2.3712	1.3034	0.0000	1.3034			0.0000			0.0000
Off-Road	0.5573	11.0077	15.4528	0.0229		0.5267	0.5267		0.5267	0.5267	0.0000	2,379.3382	2,379.3382	0.7177		2,394.4097
Total	**0.5573**	**11.0077**	**15.4528**	**0.0229**	**2.3712**	**0.5267**	**2.8979**	**1.3034**	**0.5267**	**1.8301**	**0.0000**	**2,379.3382**	**2,379.3382**	**0.7177**		**2,394.4097**

3.3 Site Preparation - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1346	1.0889	1.8053	2.5700e-003	0.0582	0.0132	0.0714	0.0159	0.0122	0.0281		257.2808	257.2808	2.0800e-003		257.3245
Vendor	0.0234	0.2966	0.2344	7.7000e-004	0.0227	4.9500e-003	0.0277	6.4800e-003	4.5600e-003	0.0110		77.3263	77.3263	5.7000e-004		77.3383
Worker	0.0174	0.0286	0.2598	5.2000e-004	0.0456	3.6000e-004	0.0460	0.0121	3.3000e-004	0.0124		43.3259	43.3259	2.3900e-003		43.3760
Total	**0.1754**	**1.4141**	**2.2995**	**3.8600e-003**	**0.1265**	**0.0186**	**0.1450**	**0.0345**	**0.0171**	**0.0516**		**377.9331**	**377.9331**	**5.0400e-003**		**378.0388**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.7287	0.0000	4.7287	2.5056	0.0000	2.5056			0.0000			0.0000
Off-Road	3.5677	38.5914	23.5846	0.0342		2.0597	2.0597		1.8949	1.8949		3,552.9635	3,552.9635	1.0717		3,575.4691
Total	**3.5677**	**38.5914**	**23.5846**	**0.0342**	**4.7287**	**2.0597**	**6.7883**	**2.5056**	**1.8949**	**4.4005**		**3,552.9635**	**3,552.9635**	**1.0717**		**3,575.4691**

3.4 Grading - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0505	0.4084	0.6770	9.6000e-004	0.0218	4.9600e-003	0.0268	5.9700e-003	4.5600e-003	0.0105		96.4803	96.4803	7.8000e-004		96.4967
Vendor	0.0234	0.2966	0.2344	7.7000e-004	0.0227	4.9500e-003	0.0277	6.4800e-003	4.5600e-003	0.0110		77.3263	77.3263	5.7000e-004		77.3383
Worker	0.0261	0.0429	0.3897	7.7000e-004	0.0684	5.4000e-004	0.0690	0.0182	5.0000e-004	0.0186		64.9888	64.9888	3.5800e-003		65.0640
Total	**0.1000**	**0.7478**	**1.3011**	**2.5000e-003**	**0.1130**	**0.0105**	**0.1234**	**0.0306**	**9.6200e-003**	**0.0402**		**238.7955**	**238.7955**	**4.9300e-003**		**238.8990**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.1279	0.0000	2.1279	1.1275	0.0000	1.1275			0.0000			0.0000
Off-Road	0.7644	14.6109	20.9827	0.0342		0.7611	0.7611		0.7611	0.7611	0.0000	3,552.9634	3,552.9634	1.0717		3,575.4691
Total	**0.7644**	**14.6109**	**20.9827**	**0.0342**	**2.1279**	**0.7611**	**2.8890**	**1.1275**	**0.7611**	**1.8886**	**0.0000**	**3,552.9634**	**3,552.9634**	**1.0717**		**3,575.4691**

3.4 Grading - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0505	0.4084	0.6770	9.6000e-004	0.0218	4.9600e-003	0.0268	5.9700e-003	4.5600e-003	0.0105		96.4803	96.4803	7.8000e-004		96.4967
Vendor	0.0234	0.2966	0.2344	7.7000e-004	0.0227	4.9500e-003	0.0277	6.4800e-003	4.5600e-003	0.0110		77.3263	77.3263	5.7000e-004		77.3383
Worker	0.0261	0.0429	0.3897	7.7000e-004	0.0684	5.4000e-004	0.0690	0.0182	5.0000e-004	0.0186		64.9888	64.9888	3.5800e-003		65.0640
Total	**0.1000**	**0.7478**	**1.3011**	**2.5000e-003**	**0.1130**	**0.0105**	**0.1234**	**0.0306**	**9.6200e-003**	**0.0402**		**238.7955**	**238.7955**	**4.9300e-003**		**238.8990**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3896	11.8739	8.6611	0.0129		0.8388	0.8388		0.8005	0.8005		1,263.6622	1,263.6622	0.2429		1,268.7635
Total	**1.3896**	**11.8739**	**8.6611**	**0.0129**		**0.8388**	**0.8388**		**0.8005**	**0.8005**		**1,263.6622**	**1,263.6622**	**0.2429**		**1,268.7635**

3.5 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0861	0.6088	1.0769	1.4300e-003	0.0399	9.0200e-003	0.0489	0.0114	8.2900e-003	0.0197		142.3946	142.3946	1.1600e-003		142.4191
Worker	0.0816	0.1202	1.1094	2.1400e-003	0.1886	1.5200e-003	0.1901	0.0500	1.3900e-003	0.0514		179.8720	179.8720	0.0100		180.0819
Total	**0.1677**	**0.7290**	**2.1863**	**3.5700e-003**	**0.2285**	**0.0105**	**0.2390**	**0.0614**	**9.6800e-003**	**0.0711**		**322.2666**	**322.2666**	**0.0112**		**322.5010**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2729	6.1210	8.1259	0.0129		0.4094	0.4094		0.4094	0.4094	0.0000	1,263.6622	1,263.6622	0.2429		1,268.7635
Total	**0.2729**	**6.1210**	**8.1259**	**0.0129**		**0.4094**	**0.4094**		**0.4094**	**0.4094**	**0.0000**	**1,263.6622**	**1,263.6622**	**0.2429**		**1,268.7635**

3.5 Building Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0861	0.6088	1.0769	1.4300e-003	0.0399	9.0200e-003	0.0489	0.0114	8.2900e-003	0.0197		142.3946	142.3946	1.1600e-003		142.4191
Worker	0.0816	0.1202	1.1094	2.1400e-003	0.1886	1.5200e-003	0.1901	0.0500	1.3900e-003	0.0514		179.8720	179.8720	0.0100		180.0819
Total	**0.1677**	**0.7290**	**2.1863**	**3.5700e-003**	**0.2285**	**0.0105**	**0.2390**	**0.0614**	**9.6800e-003**	**0.0711**		**322.2666**	**322.2666**	**0.0112**		**322.5010**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2872	13.2076	9.0880	0.0133		0.8075	0.8075		0.7438	0.7438		1,368.4366	1,368.4366	0.4053		1,376.9473
Paving	0.1074					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3946**	**13.2076**	**9.0880**	**0.0133**		**0.8075**	**0.8075**		**0.7438**	**0.7438**		**1,368.4366**	**1,368.4366**	**0.4053**		**1,376.9473**

3.6 Paving - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0530	0.0781	0.7211	1.3900e-003	0.1226	9.9000e-004	0.1236	0.0325	9.0000e-004	0.0334		116.9168	116.9168	6.5000e-003		117.0533
Total	**0.0530**	**0.0781**	**0.7211**	**1.3900e-003**	**0.1226**	**9.9000e-004**	**0.1236**	**0.0325**	**9.0000e-004**	**0.0334**		**116.9168**	**116.9168**	**6.5000e-003**		**117.0533**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3146	6.5459	9.7014	0.0133		0.3818	0.3818		0.3818	0.3818	0.0000	1,368.4366	1,368.4366	0.4053		1,376.9473
Paving	0.1074					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.4221**	**6.5459**	**9.7014**	**0.0133**		**0.3818**	**0.3818**		**0.3818**	**0.3818**	**0.0000**	**1,368.4366**	**1,368.4366**	**0.4053**		**1,376.9473**

3.6 Paving - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0530	0.0781	0.7211	1.3900e-003	0.1226	9.9000e-004	0.1236	0.0325	9.0000e-004	0.0334		116.9168	116.9168	6.5000e-003		117.0533
Total	**0.0530**	**0.0781**	**0.7211**	**1.3900e-003**	**0.1226**	**9.9000e-004**	**0.1236**	**0.0325**	**9.0000e-004**	**0.0334**		**116.9168**	**116.9168**	**6.5000e-003**		**117.0533**

3.7 Architectural Coating - 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	lb/day										lb/day					
Archit. Coating	10.5504					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721
Total	**10.8827**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**		**281.4481**	**281.4481**	**0.0297**		**282.0721**

3.7 Architectural Coating - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	7.2200e-003	0.0108	0.0983	2.1000e-004	0.0189	1.4000e-004	0.0190	5.0000e-003	1.3000e-004	5.1400e-003		17.3020	17.3020	9.1000e-004		17.3211
Total	**7.2200e-003**	**0.0108**	**0.0983**	**2.1000e-004**	**0.0189**	**1.4000e-004**	**0.0190**	**5.0000e-003**	**1.3000e-004**	**5.1400e-003**		**17.3020**	**17.3020**	**9.1000e-004**		**17.3211**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	10.5504					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0297		282.0721
Total	**10.6099**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0297**		**282.0721**

3.7 Architectural Coating - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	7.2200e-003	0.0108	0.0983	2.1000e-004	0.0189	1.4000e-004	0.0190	5.0000e-003	1.3000e-004	5.1400e-003		17.3020	17.3020	9.1000e-004		17.3211
Total	**7.2200e-003**	**0.0108**	**0.0983**	**2.1000e-004**	**0.0189**	**1.4000e-004**	**0.0190**	**5.0000e-003**	**1.3000e-004**	**5.1400e-003**		**17.3020**	**17.3020**	**9.1000e-004**		**17.3211**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.2952	4.5298	26.5315	0.0341	2.3547	0.0523	2.4070	0.6299	0.0482	0.6781		2,798.7374	2,798.7374	0.1262		2,801.3869
Unmitigated	3.2952	4.5298	26.5315	0.0341	2.3547	0.0523	2.4070	0.6299	0.0482	0.6781		2,798.7374	2,798.7374	0.1262		2,801.3869

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	1,186.68	1,186.68	1186.68	1,108,745	1,108,745
Parking Lot	0.00	0.00	0.00		
Total	1,186.68	1,186.68	1,186.68	1,108,745	1,108,745

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	9.50	7.30	7.30	2.20	78.80	19.00	29	21	50
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.546229	0.063048	0.174586	0.122573	0.033968	0.004845	0.015596	0.024745	0.002089	0.003270	0.006707	0.000678	0.001667

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0669	0.6080	0.5108	3.6500e-003		0.0462	0.0462		0.0462	0.0462		729.6409	729.6409	0.0140	0.0134	734.0814
NaturalGas Unmitigated	0.0723	0.6576	0.5523	3.9500e-003		0.0500	0.0500		0.0500	0.0500		789.0617	789.0617	0.0151	0.0145	793.8638

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
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
Fast Food Restaurant with Drive Thru	6707.02	0.0723	0.6576	0.5523	3.9500e-003		0.0500	0.0500		0.0500	0.0500		789.0617	789.0617	0.0151	0.0145	793.8638
Total		**0.0723**	**0.6576**	**0.5523**	**3.9500e-003**		**0.0500**	**0.0500**		**0.0500**	**0.0500**		**789.0617**	**789.0617**	**0.0151**	**0.0145**	**793.8638**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
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
Fast Food Restaurant with Drive Thru	6.20195	0.0669	0.6080	0.5108	3.6500e-003		0.0462	0.0462		0.0462	0.0462		729.6409	729.6409	0.0140	0.0134	734.0814
Total		**0.0669**	**0.6080**	**0.5108**	**3.6500e-003**		**0.0462**	**0.0462**		**0.0462**	**0.0462**		**729.6409**	**729.6409**	**0.0140**	**0.0134**	**734.0814**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.6803	5.0000e-005	5.8600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0124	0.0124	3.0000e-005		0.0131
Unmitigated	0.7034	5.0000e-005	5.8600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0124	0.0124	3.0000e-005		0.0131

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0694					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.6334					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.6000e-004	5.0000e-005	5.8600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0124	0.0124	3.0000e-005		0.0131
Total	**0.7034**	**5.0000e-005**	**5.8600e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**0.0124**	**0.0124**	**3.0000e-005**		**0.0131**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0463					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.6334					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.6000e-004	5.0000e-005	5.8600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0124	0.0124	3.0000e-005		0.0131
Total	**0.6803**	**5.0000e-005**	**5.8600e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**0.0124**	**0.0124**	**3.0000e-005**		**0.0131**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Vegetation

Existing Home Improvement Superstore

San Francisco Bay Area Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Home Improvement Superstore	48.32	1000sqft	1.60	48,324.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2014
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - proj site appx 1.6 acre based on site plans

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	48,320.00	48,324.00
tblLandUse	LotAcreage	1.11	1.60

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	0.9114	2.3923	1.9299	2.9400e-003	0.0365	0.1478	0.1843	0.0137	0.1417	0.1554	0.0000	249.1707	249.1707	0.0485	0.0000	250.1889
Total	**0.9114**	**2.3923**	**1.9299**	**2.9400e-003**	**0.0365**	**0.1478**	**0.1843**	**0.0137**	**0.1417**	**0.1554**	**0.0000**	**249.1707**	**249.1707**	**0.0485**	**0.0000**	**250.1889**

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	0.9114	2.3923	1.9299	2.9400e-003	0.0365	0.1478	0.1843	0.0137	0.1417	0.1554	0.0000	249.1704	249.1704	0.0485	0.0000	250.1887
Total	**0.9114**	**2.3923**	**1.9299**	**2.9400e-003**	**0.0365**	**0.1478**	**0.1843**	**0.0137**	**0.1417**	**0.1554**	**0.0000**	**249.1704**	**249.1704**	**0.0485**	**0.0000**	**250.1887**

	ROG	NOx	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**

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	0.2448	0.0000	4.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.6000e-004	8.6000e-004	0.0000	0.0000	9.2000e-004
Energy	6.5000e-004	5.9000e-003	4.9500e-003	4.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	170.7592	170.7592	7.5500e-003	1.6600e-003	171.4309
Mobile	1.1854	1.8605	9.4258	0.0107	0.7183	0.0246	0.7429	0.1928	0.0225	0.2153	0.0000	896.6020	896.6020	0.0503	0.0000	897.6576
Waste						0.0000	0.0000		0.0000	0.0000	108.7687	0.0000	108.7687	6.4280	0.0000	243.7576
Water						0.0000	0.0000		0.0000	0.0000	1.1355	7.8677	9.0032	0.1170	2.8300e-003	12.3363
Total	**1.4309**	**1.8664**	**9.4312**	**0.0108**	**0.7183**	**0.0250**	**0.7434**	**0.1928**	**0.0230**	**0.2158**	**109.9042**	**1,075.2297**	**1,185.1338**	**6.6028**	**4.4900e-003**	**1,325.1833**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2448	0.0000	4.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.6000e-004	8.6000e-004	0.0000	0.0000	9.2000e-004
Energy	6.5000e-004	5.9000e-003	4.9500e-003	4.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	170.7592	170.7592	7.5500e-003	1.6600e-003	171.4309
Mobile	1.1854	1.8605	9.4258	0.0107	0.7183	0.0246	0.7429	0.1928	0.0225	0.2153	0.0000	896.6020	896.6020	0.0503	0.0000	897.6576
Waste						0.0000	0.0000		0.0000	0.0000	108.7687	0.0000	108.7687	6.4280	0.0000	243.7576
Water						0.0000	0.0000		0.0000	0.0000	1.1355	7.8677	9.0032	0.1170	2.8200e-003	12.3345
Total	**1.4309**	**1.8664**	**9.4312**	**0.0108**	**0.7183**	**0.0250**	**0.7434**	**0.1928**	**0.0230**	**0.2158**	**109.9042**	**1,075.2297**	**1,185.1338**	**6.6028**	**4.4800e-003**	**1,325.1815**

	ROG	NOx	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**	**0.22**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2017	1/27/2017	5	20	
2	Site Preparation	Site Preparation	1/28/2017	1/31/2017	5	2	
3	Grading	Grading	2/1/2017	2/6/2017	5	4	
4	Building Construction	Building Construction	2/7/2017	11/13/2017	5	200	
5	Paving	Paving	11/14/2017	11/27/2017	5	10	
6	Architectural Coating	Architectural Coating	11/28/2017	12/11/2017	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 72,486; Non-Residential Outdoor: 24,162 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Rubber Tired Dozers	1	6.00	255	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	226	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Graders	1	6.00	174	0.41
Paving	Paving Equipment	1	8.00	130	0.36
Site Preparation	Rubber Tired Dozers	1	7.00	255	0.40
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	15.00	8.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	3.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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					
Off-Road	0.0272	0.2659	0.2087	2.4000e-004		0.0161	0.0161		0.0150	0.0150	0.0000	22.2938	22.2938	5.6600e-003	0.0000	22.4126
Total	**0.0272**	**0.2659**	**0.2087**	**2.4000e-004**		**0.0161**	**0.0161**		**0.0150**	**0.0150**	**0.0000**	**22.2938**	**22.2938**	**5.6600e-003**	**0.0000**	**22.4126**

3.2 Demolition - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	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	4.4000e-004	6.4000e-004	6.1500e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	1.0294	1.0294	5.0000e-005	0.0000	1.0305
Total	**4.4000e-004**	**6.4000e-004**	**6.1500e-003**	**1.0000e-005**	**1.1800e-003**	**1.0000e-005**	**1.1900e-003**	**3.1000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.0294**	**1.0294**	**5.0000e-005**	**0.0000**	**1.0305**

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	0.0272	0.2659	0.2087	2.4000e-004		0.0161	0.0161		0.0150	0.0150	0.0000	22.2938	22.2938	5.6600e-003	0.0000	22.4125
Total	**0.0272**	**0.2659**	**0.2087**	**2.4000e-004**		**0.0161**	**0.0161**		**0.0150**	**0.0150**	**0.0000**	**22.2938**	**22.2938**	**5.6600e-003**	**0.0000**	**22.4125**

3.2 Demolition - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	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	4.4000e-004	6.4000e-004	6.1500e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	1.0294	1.0294	5.0000e-005	0.0000	1.0305
Total	**4.4000e-004**	**6.4000e-004**	**6.1500e-003**	**1.0000e-005**	**1.1800e-003**	**1.0000e-005**	**1.1900e-003**	**3.1000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.0294**	**1.0294**	**5.0000e-005**	**0.0000**	**1.0305**

3.3 Site Preparation - 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					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3100e-003	0.0242	0.0159	2.0000e-005		1.3100e-003	1.3100e-003		1.2000e-003	1.2000e-003	0.0000	1.5895	1.5895	4.9000e-004	0.0000	1.5997
Total	**2.3100e-003**	**0.0242**	**0.0159**	**2.0000e-005**	**5.8000e-003**	**1.3100e-003**	**7.1100e-003**	**2.9500e-003**	**1.2000e-003**	**4.1500e-003**	**0.0000**	**1.5895**	**1.5895**	**4.9000e-004**	**0.0000**	**1.5997**

3.3 Site Preparation - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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-005	4.0000e-005	3.8000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0634	0.0634	0.0000	0.0000	0.0634
Total	**3.0000e-005**	**4.0000e-005**	**3.8000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0634**	**0.0634**	**0.0000**	**0.0000**	**0.0634**

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					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3100e-003	0.0242	0.0159	2.0000e-005		1.3100e-003	1.3100e-003		1.2000e-003	1.2000e-003	0.0000	1.5895	1.5895	4.9000e-004	0.0000	1.5997
Total	**2.3100e-003**	**0.0242**	**0.0159**	**2.0000e-005**	**5.8000e-003**	**1.3100e-003**	**7.1100e-003**	**2.9500e-003**	**1.2000e-003**	**4.1500e-003**	**0.0000**	**1.5895**	**1.5895**	**4.9000e-004**	**0.0000**	**1.5997**

3.3 Site Preparation - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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-005	4.0000e-005	3.8000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0634	0.0634	0.0000	0.0000	0.0634
Total	**3.0000e-005**	**4.0000e-005**	**3.8000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0634**	**0.0634**	**0.0000**	**0.0000**	**0.0634**

3.4 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					9.8300e-003	0.0000	9.8300e-003	5.0500e-003	0.0000	5.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.7700e-003	0.0396	0.0264	3.0000e-005		2.1300e-003	2.1300e-003		1.9600e-003	1.9600e-003	0.0000	2.6112	2.6112	8.0000e-004	0.0000	2.6280
Total	**3.7700e-003**	**0.0396**	**0.0264**	**3.0000e-005**	**9.8300e-003**	**2.1300e-003**	**0.0120**	**5.0500e-003**	**1.9600e-003**	**7.0100e-003**	**0.0000**	**2.6112**	**2.6112**	**8.0000e-004**	**0.0000**	**2.6280**

3.4 Grading - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	8.0000e-005	7.6000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1267	0.1267	1.0000e-005	0.0000	0.1268
Total	**5.0000e-005**	**8.0000e-005**	**7.6000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1267**	**0.1267**	**1.0000e-005**	**0.0000**	**0.1268**

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					9.8300e-003	0.0000	9.8300e-003	5.0500e-003	0.0000	5.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.7700e-003	0.0396	0.0264	3.0000e-005		2.1300e-003	2.1300e-003		1.9600e-003	1.9600e-003	0.0000	2.6112	2.6112	8.0000e-004	0.0000	2.6280
Total	**3.7700e-003**	**0.0396**	**0.0264**	**3.0000e-005**	**9.8300e-003**	**2.1300e-003**	**0.0120**	**5.0500e-003**	**1.9600e-003**	**7.0100e-003**	**0.0000**	**2.6112**	**2.6112**	**8.0000e-004**	**0.0000**	**2.6280**

3.4 Grading - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	8.0000e-005	7.6000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1267	0.1267	1.0000e-005	0.0000	0.1268
Total	**5.0000e-005**	**8.0000e-005**	**7.6000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1267**	**0.1267**	**1.0000e-005**	**0.0000**	**0.1268**

3.5 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	0.2955	1.9109	1.4311	2.2000e-003		0.1226	0.1226		0.1182	0.1182	0.0000	184.5473	184.5473	0.0387	0.0000	185.3605
Total	**0.2955**	**1.9109**	**1.4311**	**2.2000e-003**		**0.1226**	**0.1226**		**0.1182**	**0.1182**	**0.0000**	**184.5473**	**184.5473**	**0.0387**	**0.0000**	**185.3605**

3.5 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.2300e-003	0.0719	0.1112	1.9000e-004	5.1500e-003	1.0300e-003	6.1800e-003	1.4800e-003	9.5000e-004	2.4300e-003	0.0000	17.0088	17.0088	1.3000e-004	0.0000	17.0115
Worker	5.0500e-003	7.3800e-003	0.0710	1.6000e-004	0.0136	1.1000e-004	0.0137	3.6200e-003	1.0000e-004	3.7200e-003	0.0000	11.8777	11.8777	6.2000e-004	0.0000	11.8907
Total	**0.0143**	**0.0792**	**0.1822**	**3.5000e-004**	**0.0188**	**1.1400e-003**	**0.0199**	**5.1000e-003**	**1.0500e-003**	**6.1500e-003**	**0.0000**	**28.8864**	**28.8864**	**7.5000e-004**	**0.0000**	**28.9023**

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	0.2955	1.9109	1.4311	2.2000e-003		0.1226	0.1226		0.1182	0.1182	0.0000	184.5471	184.5471	0.0387	0.0000	185.3603
Total	**0.2955**	**1.9109**	**1.4311**	**2.2000e-003**		**0.1226**	**0.1226**		**0.1182**	**0.1182**	**0.0000**	**184.5471**	**184.5471**	**0.0387**	**0.0000**	**185.3603**

3.5 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.2300e-003	0.0719	0.1112	1.9000e-004	5.1500e-003	1.0300e-003	6.1800e-003	1.4800e-003	9.5000e-004	2.4300e-003	0.0000	17.0088	17.0088	1.3000e-004	0.0000	17.0115
Worker	5.0500e-003	7.3800e-003	0.0710	1.6000e-004	0.0136	1.1000e-004	0.0137	3.6200e-003	1.0000e-004	3.7200e-003	0.0000	11.8777	11.8777	6.2000e-004	0.0000	11.8907
Total	**0.0143**	**0.0792**	**0.1822**	**3.5000e-004**	**0.0188**	**1.1400e-003**	**0.0199**	**5.1000e-003**	**1.0500e-003**	**6.1500e-003**	**0.0000**	**28.8864**	**28.8864**	**7.5000e-004**	**0.0000**	**28.9023**

3.6 Paving - 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	5.9300e-003	0.0605	0.0452	7.0000e-005		3.6700e-003	3.6700e-003		3.3800e-003	3.3800e-003	0.0000	6.1129	6.1129	1.8400e-003	0.0000	6.1515
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.9300e-003**	**0.0605**	**0.0452**	**7.0000e-005**		**3.6700e-003**	**3.6700e-003**		**3.3800e-003**	**3.3800e-003**	**0.0000**	**6.1129**	**6.1129**	**1.8400e-003**	**0.0000**	**6.1515**

3.6 Paving - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	2.2000e-004	3.2000e-004	3.0800e-003	1.0000e-005	5.9000e-004	0.0000	5.9000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5147	0.5147	3.0000e-005	0.0000	0.5153
Total	**2.2000e-004**	**3.2000e-004**	**3.0800e-003**	**1.0000e-005**	**5.9000e-004**	**0.0000**	**5.9000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.5147**	**0.5147**	**3.0000e-005**	**0.0000**	**0.5153**

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	5.9300e-003	0.0605	0.0452	7.0000e-005		3.6700e-003	3.6700e-003		3.3800e-003	3.3800e-003	0.0000	6.1129	6.1129	1.8400e-003	0.0000	6.1515
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.9300e-003**	**0.0605**	**0.0452**	**7.0000e-005**		**3.6700e-003**	**3.6700e-003**		**3.3800e-003**	**3.3800e-003**	**0.0000**	**6.1129**	**6.1129**	**1.8400e-003**	**0.0000**	**6.1515**

3.6 Paving - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	2.2000e-004	3.2000e-004	3.0800e-003	1.0000e-005	5.9000e-004	0.0000	5.9000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5147	0.5147	3.0000e-005	0.0000	0.5153
Total	**2.2000e-004**	**3.2000e-004**	**3.0800e-003**	**1.0000e-005**	**5.9000e-004**	**0.0000**	**5.9000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.5147**	**0.5147**	**3.0000e-005**	**0.0000**	**0.5153**

3.7 Architectural Coating - 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					
Archit. Coating	0.5600					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6600e-003	0.0109	9.3400e-003	1.0000e-005		8.7000e-004	8.7000e-004		8.7000e-004	8.7000e-004	0.0000	1.2766	1.2766	1.3000e-004	0.0000	1.2795
Total	**0.5616**	**0.0109**	**9.3400e-003**	**1.0000e-005**		**8.7000e-004**	**8.7000e-004**		**8.7000e-004**	**8.7000e-004**	**0.0000**	**1.2766**	**1.2766**	**1.3000e-004**	**0.0000**	**1.2795**

3.7 Architectural Coating - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	5.0000e-005	7.0000e-005	7.1000e-004	0.0000	1.4000e-004	0.0000	1.4000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1188	0.1188	1.0000e-005	0.0000	0.1189
Total	**5.0000e-005**	**7.0000e-005**	**7.1000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1188**	**0.1188**	**1.0000e-005**	**0.0000**	**0.1189**

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	0.5600					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6600e-003	0.0109	9.3400e-003	1.0000e-005		8.7000e-004	8.7000e-004		8.7000e-004	8.7000e-004	0.0000	1.2766	1.2766	1.3000e-004	0.0000	1.2795
Total	**0.5616**	**0.0109**	**9.3400e-003**	**1.0000e-005**		**8.7000e-004**	**8.7000e-004**		**8.7000e-004**	**8.7000e-004**	**0.0000**	**1.2766**	**1.2766**	**1.3000e-004**	**0.0000**	**1.2795**

3.7 Architectural Coating - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	5.0000e-005	7.0000e-005	7.1000e-004	0.0000	1.4000e-004	0.0000	1.4000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1188	0.1188	1.0000e-005	0.0000	0.1189
Total	**5.0000e-005**	**7.0000e-005**	**7.1000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1188**	**0.1188**	**1.0000e-005**	**0.0000**	**0.1189**

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	1.1854	1.8605	9.4258	0.0107	0.7183	0.0246	0.7429	0.1928	0.0225	0.2153	0.0000	896.6020	896.6020	0.0503	0.0000	897.6576
Unmitigated	1.1854	1.8605	9.4258	0.0107	0.7183	0.0246	0.7429	0.1928	0.0225	0.2153	0.0000	896.6020	896.6020	0.0503	0.0000	897.6576

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Home Improvement Superstore	1,439.94	2,740.71	2696.26	1,931,546	1,931,546
Total	1,439.94	2,740.71	2,696.26	1,931,546	1,931,546

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
Home Improvement Superstore	9.50	7.30	7.30	23.40	57.60	19.00	32	20	48

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.546249	0.062948	0.174600	0.125189	0.034587	0.004960	0.015036	0.022157	0.002053	0.003311	0.006538	0.000702	0.001670

4.4 Fleet Mix

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	164.3381	164.3381	7.4300e-003	1.5400e-003	164.9707
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	164.3381	164.3381	7.4300e-003	1.5400e-003	164.9707
NaturalGas Mitigated	6.5000e-004	5.9000e-003	4.9500e-003	4.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	6.4211	6.4211	1.2000e-004	1.2000e-004	6.4602
NaturalGas Unmitigated	6.5000e-004	5.9000e-003	4.9500e-003	4.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	6.4211	6.4211	1.2000e-004	1.2000e-004	6.4602

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					
Home Improvement Superstore	120327	6.5000e-004	5.9000e-003	4.9500e-003	4.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	6.4211	6.4211	1.2000e-004	1.2000e-004	6.4602
Total		**6.5000e-004**	**5.9000e-003**	**4.9500e-003**	**4.0000e-005**		**4.5000e-004**	**4.5000e-004**		**4.5000e-004**	**4.5000e-004**	**0.0000**	**6.4211**	**6.4211**	**1.2000e-004**	**1.2000e-004**	**6.4602**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Home Improvement Superstore	120327	6.5000e-004	5.9000e-003	4.9500e-003	4.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	6.4211	6.4211	1.2000e-004	1.2000e-004	6.4602
Total		**6.5000e-004**	**5.9000e-003**	**4.9500e-003**	**4.0000e-005**		**4.5000e-004**	**4.5000e-004**		**4.5000e-004**	**4.5000e-004**	**0.0000**	**6.4211**	**6.4211**	**1.2000e-004**	**1.2000e-004**	**6.4602**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Home Improvement Superstore	564908	164.3381	7.4300e-003	1.5400e-003	164.9707
Total		**164.3381**	**7.4300e-003**	**1.5400e-003**	**164.9707**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Home Improvement Superstore	564908	164.3381	7.4300e-003	1.5400e-003	164.9707
Total		**164.3381**	**7.4300e-003**	**1.5400e-003**	**164.9707**

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	0.2448	0.0000	4.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.6000e-004	8.6000e-004	0.0000	0.0000	9.2000e-004
Unmitigated	0.2448	0.0000	4.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.6000e-004	8.6000e-004	0.0000	0.0000	9.2000e-004

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	0.0560					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1887					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	4.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.6000e-004	8.6000e-004	0.0000	0.0000	9.2000e-004
Total	**0.2448**	**0.0000**	**4.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**8.6000e-004**	**8.6000e-004**	**0.0000**	**0.0000**	**9.2000e-004**

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	0.0560					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1887					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	4.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.6000e-004	8.6000e-004	0.0000	0.0000	9.2000e-004
Total	**0.2448**	**0.0000**	**4.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**8.6000e-004**	**8.6000e-004**	**0.0000**	**0.0000**	**9.2000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	9.0032	0.1170	2.8200e-003	12.3345
Unmitigated	9.0032	0.1170	2.8300e-003	12.3363

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Home Improvement Superstore	3.57918 / 2.19369	9.0032	0.1170	2.8300e-003	12.3363
Total		**9.0032**	**0.1170**	**2.8300e-003**	**12.3363**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Home Improvement Superstore	3.57918 / 2.19369	9.0032	0.1170	2.8200e-003	12.3345
Total		**9.0032**	**0.1170**	**2.8200e-003**	**12.3345**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	108.7687	6.4280	0.0000	243.7576
Unmitigated	108.7687	6.4280	0.0000	243.7576

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Home Improvement Superstore	535.83	108.7687	6.4280	0.0000	243.7576
Total		**108.7687**	**6.4280**	**0.0000**	**243.7576**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Home Improvement Superstore	535.83	108.7687	6.4280	0.0000	243.7576
Total		**108.7687**	**6.4280**	**0.0000**	**243.7576**

9.0 Operational Offroad

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

10.0 Vegetation

Project Home Improvement Superstore

San Francisco Bay Area Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Home Improvement Superstore	48.32	1000sqft	1.60	48,324.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2014
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - proj site appx 1.6 acre based on site plans

Vehicle Trips - client provided traffic study

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	48,320.00	48,324.00
tblLandUse	LotAcreage	1.11	1.60
tblVehicleTrips	ST_TR	56.72	30.75
tblVehicleTrips	SU_TR	55.80	30.75
tblVehicleTrips	WD_TR	29.80	30.75

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	112.3341	26.6420	21.5308	0.0260	5.8750	1.6071	7.1823	2.9737	1.5031	4.1764	0.0000	2,579.3699	2,579.3699	0.6295	0.0000	2,592.5883
Total	**112.3341**	**26.6420**	**21.5308**	**0.0260**	**5.8750**	**1.6071**	**7.1823**	**2.9737**	**1.5031**	**4.1764**	**0.0000**	**2,579.3699**	**2,579.3699**	**0.6295**	**0.0000**	**2,592.5883**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	112.3341	26.6420	21.5308	0.0260	5.8750	1.6071	7.1823	2.9737	1.5031	4.1764	0.0000	2,579.3699	2,579.3699	0.6295	0.0000	2,592.5883
Total	**112.3341**	**26.6420**	**21.5308**	**0.0260**	**5.8750**	**1.6071**	**7.1823**	**2.9737**	**1.5031**	**4.1764**	**0.0000**	**2,579.3699**	**2,579.3699**	**0.6295**	**0.0000**	**2,592.5883**

	ROG	NOx	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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.3415	5.0000e-005	5.1600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0106	0.0106	3.0000e-005		0.0112
Energy	3.5600e-003	0.0323	0.0272	1.9000e-004		2.4600e-003	2.4600e-003		2.4600e-003	2.4600e-003		38.7838	38.7838	7.4000e-004	7.1000e-004	39.0198
Mobile	5.4701	7.9033	38.3599	0.0512	3.3751	0.1105	3.4856	0.9028	0.1013	1.0041		4,721.6000	4,721.6000	0.2508		4,726.8657
Total	**6.8152**	**7.9357**	**38.3922**	**0.0514**	**3.3751**	**0.1130**	**3.4881**	**0.9028**	**0.1038**	**1.0066**		**4,760.3943**	**4,760.3943**	**0.2515**	**7.1000e-004**	**4,765.8968**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.3415	5.0000e-005	5.1600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0106	0.0106	3.0000e-005		0.0112
Energy	3.5600e-003	0.0323	0.0272	1.9000e-004		2.4600e-003	2.4600e-003		2.4600e-003	2.4600e-003		38.7838	38.7838	7.4000e-004	7.1000e-004	39.0198
Mobile	5.4701	7.9033	38.3599	0.0512	3.3751	0.1105	3.4856	0.9028	0.1013	1.0041		4,721.6000	4,721.6000	0.2508		4,726.8657
Total	**6.8152**	**7.9357**	**38.3922**	**0.0514**	**3.3751**	**0.1130**	**3.4881**	**0.9028**	**0.1038**	**1.0066**		**4,760.3943**	**4,760.3943**	**0.2515**	**7.1000e-004**	**4,765.8968**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2017	1/27/2017	5	20	
2	Site Preparation	Site Preparation	1/28/2017	1/31/2017	5	2	
3	Grading	Grading	2/1/2017	2/6/2017	5	4	
4	Building Construction	Building Construction	2/7/2017	11/13/2017	5	200	
5	Paving	Paving	11/14/2017	11/27/2017	5	10	
6	Architectural Coating	Architectural Coating	11/28/2017	12/11/2017	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 72,486; Non-Residential Outdoor: 24,162 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	174	0.41
Grading	Rubber Tired Dozers	1	6.00	255	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	226	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	125	0.42
Paving	Paving Equipment	1	8.00	130	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	15.00	8.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	3.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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	lb/day										lb/day					
Off-Road	2.7216	26.5855	20.8712	0.0245		1.6062	1.6062		1.5022	1.5022		2,457.4682	2,457.4682	0.6235		2,470.5620
Total	**2.7216**	**26.5855**	**20.8712**	**0.0245**		**1.6062**	**1.6062**		**1.5022**	**1.5022**		**2,457.4682**	**2,457.4682**	**0.6235**		**2,470.5620**

3.2 Demolition - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0471	0.0565	0.6596	1.5100e-003	0.1226	9.4000e-004	0.1235	0.0325	8.7000e-004	0.0334		121.9017	121.9017	5.9400e-003		122.0263
Total	**0.0471**	**0.0565**	**0.6596**	**1.5100e-003**	**0.1226**	**9.4000e-004**	**0.1235**	**0.0325**	**8.7000e-004**	**0.0334**		**121.9017**	**121.9017**	**5.9400e-003**		**122.0263**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.7216	26.5855	20.8712	0.0245		1.6062	1.6062		1.5022	1.5022	0.0000	2,457.4682	2,457.4682	0.6235		2,470.5620
Total	**2.7216**	**26.5855**	**20.8712**	**0.0245**		**1.6062**	**1.6062**		**1.5022**	**1.5022**	**0.0000**	**2,457.4682**	**2,457.4682**	**0.6235**		**2,470.5620**

3.2 Demolition - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0471	0.0565	0.6596	1.5100e-003	0.1226	9.4000e-004	0.1235	0.0325	8.7000e-004	0.0334		121.9017	121.9017	5.9400e-003		122.0263
Total	**0.0471**	**0.0565**	**0.6596**	**1.5100e-003**	**0.1226**	**9.4000e-004**	**0.1235**	**0.0325**	**8.7000e-004**	**0.0334**		**121.9017**	**121.9017**	**5.9400e-003**		**122.0263**

3.3 Site Preparation - 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	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	2.3109	24.2288	15.9299	0.0171		1.3067	1.3067		1.2022	1.2022		1,752.1239	1,752.1239	0.5369		1,763.3977
Total	**2.3109**	**24.2288**	**15.9299**	**0.0171**	**5.7996**	**1.3067**	**7.1063**	**2.9537**	**1.2022**	**4.1559**		**1,752.1239**	**1,752.1239**	**0.5369**		**1,763.3977**

3.3 Site Preparation - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0290	0.0348	0.4059	9.3000e-004	0.0754	5.8000e-004	0.0760	0.0200	5.3000e-004	0.0205		75.0164	75.0164	3.6500e-003		75.0931
Total	**0.0290**	**0.0348**	**0.4059**	**9.3000e-004**	**0.0754**	**5.8000e-004**	**0.0760**	**0.0200**	**5.3000e-004**	**0.0205**		**75.0164**	**75.0164**	**3.6500e-003**		**75.0931**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	2.3109	24.2288	15.9299	0.0171		1.3067	1.3067		1.2022	1.2022	0.0000	1,752.1239	1,752.1239	0.5369		1,763.3977
Total	**2.3109**	**24.2288**	**15.9299**	**0.0171**	**5.7996**	**1.3067**	**7.1063**	**2.9537**	**1.2022**	**4.1559**	**0.0000**	**1,752.1239**	**1,752.1239**	**0.5369**		**1,763.3977**

3.3 Site Preparation - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0290	0.0348	0.4059	9.3000e-004	0.0754	5.8000e-004	0.0760	0.0200	5.3000e-004	0.0205		75.0164	75.0164	3.6500e-003		75.0931
Total	**0.0290**	**0.0348**	**0.4059**	**9.3000e-004**	**0.0754**	**5.8000e-004**	**0.0760**	**0.0200**	**5.3000e-004**	**0.0205**		**75.0164**	**75.0164**	**3.6500e-003**		**75.0931**

3.4 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	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.8844	19.7889	13.1786	0.0141		1.0661	1.0661		0.9808	0.9808		1,439.1894	1,439.1894	0.4410		1,448.4496
Total	**1.8844**	**19.7889**	**13.1786**	**0.0141**	**4.9143**	**1.0661**	**5.9804**	**2.5256**	**0.9808**	**3.5064**		**1,439.1894**	**1,439.1894**	**0.4410**		**1,448.4496**

3.4 Grading - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0290	0.0348	0.4059	9.3000e-004	0.0754	5.8000e-004	0.0760	0.0200	5.3000e-004	0.0205		75.0164	75.0164	3.6500e-003		75.0931
Total	**0.0290**	**0.0348**	**0.4059**	**9.3000e-004**	**0.0754**	**5.8000e-004**	**0.0760**	**0.0200**	**5.3000e-004**	**0.0205**		**75.0164**	**75.0164**	**3.6500e-003**		**75.0931**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.8844	19.7889	13.1786	0.0141		1.0661	1.0661		0.9808	0.9808	0.0000	1,439.1894	1,439.1894	0.4410		1,448.4496
Total	**1.8844**	**19.7889**	**13.1786**	**0.0141**	**4.9143**	**1.0661**	**5.9804**	**2.5256**	**0.9808**	**3.5064**	**0.0000**	**1,439.1894**	**1,439.1894**	**0.4410**		**1,448.4496**

3.4 Grading - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0290	0.0348	0.4059	9.3000e-004	0.0754	5.8000e-004	0.0760	0.0200	5.3000e-004	0.0205		75.0164	75.0164	3.6500e-003		75.0931
Total	**0.0290**	**0.0348**	**0.4059**	**9.3000e-004**	**0.0754**	**5.8000e-004**	**0.0760**	**0.0200**	**5.3000e-004**	**0.0205**		**75.0164**	**75.0164**	**3.6500e-003**		**75.0931**

3.5 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	lb/day										lb/day					
Off-Road	2.9546	19.1088	14.3110	0.0220		1.2257	1.2257		1.1823	1.1823		2,034.2860	2,034.2860	0.4268		2,043.2497
Total	**2.9546**	**19.1088**	**14.3110**	**0.0220**		**1.2257**	**1.2257**		**1.1823**	**1.1823**		**2,034.2860**	**2,034.2860**	**0.4268**		**2,043.2497**

3.5 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0822	0.6950	0.8568	1.9000e-003	0.0532	0.0103	0.0635	0.0152	9.4700e-003	0.0247		188.0955	188.0955	1.4400e-003		188.1257
Worker	0.0543	0.0652	0.7611	1.7400e-003	0.1415	1.0800e-003	0.1425	0.0375	1.0000e-003	0.0385		140.6558	140.6558	6.8500e-003		140.7996
Total	**0.1366**	**0.7602**	**1.6179**	**3.6400e-003**	**0.1946**	**0.0114**	**0.2060**	**0.0527**	**0.0105**	**0.0632**		**328.7513**	**328.7513**	**8.2900e-003**		**328.9253**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9546	19.1088	14.3110	0.0220		1.2257	1.2257		1.1823	1.1823	0.0000	2,034.2860	2,034.2860	0.4268		2,043.2497
Total	**2.9546**	**19.1088**	**14.3110**	**0.0220**		**1.2257**	**1.2257**		**1.1823**	**1.1823**	**0.0000**	**2,034.2860**	**2,034.2860**	**0.4268**		**2,043.2497**

3.5 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0822	0.6950	0.8568	1.9000e-003	0.0532	0.0103	0.0635	0.0152	9.4700e-003	0.0247		188.0955	188.0955	1.4400e-003		188.1257
Worker	0.0543	0.0652	0.7611	1.7400e-003	0.1415	1.0800e-003	0.1425	0.0375	1.0000e-003	0.0385		140.6558	140.6558	6.8500e-003		140.7996
Total	**0.1366**	**0.7602**	**1.6179**	**3.6400e-003**	**0.1946**	**0.0114**	**0.2060**	**0.0527**	**0.0105**	**0.0632**		**328.7513**	**328.7513**	**8.2900e-003**		**328.9253**

3.6 Paving - 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	lb/day										lb/day					
Off-Road	1.1857	12.0981	9.0308	0.0133		0.7333	0.7333		0.6755	0.6755		1,347.6575	1,347.6575	0.4052		1,356.1677
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1857**	**12.0981**	**9.0308**	**0.0133**		**0.7333**	**0.7333**		**0.6755**	**0.6755**		**1,347.6575**	**1,347.6575**	**0.4052**		**1,356.1677**

3.6 Paving - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0471	0.0565	0.6596	1.5100e-003	0.1226	9.4000e-004	0.1235	0.0325	8.7000e-004	0.0334		121.9017	121.9017	5.9400e-003		122.0263
Total	**0.0471**	**0.0565**	**0.6596**	**1.5100e-003**	**0.1226**	**9.4000e-004**	**0.1235**	**0.0325**	**8.7000e-004**	**0.0334**		**121.9017**	**121.9017**	**5.9400e-003**		**122.0263**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1857	12.0981	9.0308	0.0133		0.7333	0.7333		0.6755	0.6755	0.0000	1,347.6575	1,347.6575	0.4052		1,356.1677
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1857**	**12.0981**	**9.0308**	**0.0133**		**0.7333**	**0.7333**		**0.6755**	**0.6755**	**0.0000**	**1,347.6575**	**1,347.6575**	**0.4052**		**1,356.1677**

3.6 Paving - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0471	0.0565	0.6596	1.5100e-003	0.1226	9.4000e-004	0.1235	0.0325	8.7000e-004	0.0334		121.9017	121.9017	5.9400e-003		122.0263
Total	**0.0471**	**0.0565**	**0.6596**	**1.5100e-003**	**0.1226**	**9.4000e-004**	**0.1235**	**0.0325**	**8.7000e-004**	**0.0334**		**121.9017**	**121.9017**	**5.9400e-003**		**122.0263**

3.7 Architectural Coating - 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	lb/day										lb/day					
Archit. Coating	111.9909					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721
Total	**112.3232**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**		**281.4481**	**281.4481**	**0.0297**		**282.0721**

3.7 Architectural Coating - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0109	0.0131	0.1522	3.5000e-004	0.0283	2.2000e-004	0.0285	7.5000e-003	2.0000e-004	7.7000e-003		28.1312	28.1312	1.3700e-003		28.1599
Total	**0.0109**	**0.0131**	**0.1522**	**3.5000e-004**	**0.0283**	**2.2000e-004**	**0.0285**	**7.5000e-003**	**2.0000e-004**	**7.7000e-003**		**28.1312**	**28.1312**	**1.3700e-003**		**28.1599**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	111.9909					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297		282.0721
Total	**112.3232**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**	**0.0000**	**281.4481**	**281.4481**	**0.0297**		**282.0721**

3.7 Architectural Coating - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0109	0.0131	0.1522	3.5000e-004	0.0283	2.2000e-004	0.0285	7.5000e-003	2.0000e-004	7.7000e-003		28.1312	28.1312	1.3700e-003		28.1599
Total	**0.0109**	**0.0131**	**0.1522**	**3.5000e-004**	**0.0283**	**2.2000e-004**	**0.0285**	**7.5000e-003**	**2.0000e-004**	**7.7000e-003**		**28.1312**	**28.1312**	**1.3700e-003**		**28.1599**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.4701	7.9033	38.3599	0.0512	3.3751	0.1105	3.4856	0.9028	0.1013	1.0041		4,721.6000	4,721.6000	0.2508		4,726.8657
Unmitigated	5.4701	7.9033	38.3599	0.0512	3.3751	0.1105	3.4856	0.9028	0.1013	1.0041		4,721.6000	4,721.6000	0.2508		4,726.8657

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Home Improvement Superstore	1,485.84	1,485.84	1485.84	1,589,803	1,589,803
Total	1,485.84	1,485.84	1,485.84	1,589,803	1,589,803

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
Home Improvement Superstore	9.50	7.30	7.30	23.40	57.60	19.00	32	20	48

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.546249	0.062948	0.174600	0.125189	0.034587	0.004960	0.015036	0.022157	0.002053	0.003311	0.006538	0.000702	0.001670

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	3.5600e-003	0.0323	0.0272	1.9000e-004		2.4600e-003	2.4600e-003		2.4600e-003	2.4600e-003		38.7838	38.7838	7.4000e-004	7.1000e-004	39.0198
NaturalGas Unmitigated	3.5600e-003	0.0323	0.0272	1.9000e-004		2.4600e-003	2.4600e-003		2.4600e-003	2.4600e-003		38.7838	38.7838	7.4000e-004	7.1000e-004	39.0198

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Home Improvement Superstore	329.662	3.5600e-003	0.0323	0.0272	1.9000e-004		2.4600e-003	2.4600e-003		2.4600e-003	2.4600e-003		38.7838	38.7838	7.4000e-004	7.1000e-004	39.0198
Total		**3.5600e-003**	**0.0323**	**0.0272**	**1.9000e-004**		**2.4600e-003**	**2.4600e-003**		**2.4600e-003**	**2.4600e-003**		**38.7838**	**38.7838**	**7.4000e-004**	**7.1000e-004**	**39.0198**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Home Improvement Superstore	0.329662	3.5600e-003	0.0323	0.0272	1.9000e-004		2.4600e-003	2.4600e-003		2.4600e-003	2.4600e-003		38.7838	38.7838	7.4000e-004	7.1000e-004	39.0198
Total		**3.5600e-003**	**0.0323**	**0.0272**	**1.9000e-004**		**2.4600e-003**	**2.4600e-003**		**2.4600e-003**	**2.4600e-003**		**38.7838**	**38.7838**	**7.4000e-004**	**7.1000e-004**	**39.0198**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.3415	5.0000e-005	5.1600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0106	0.0106	3.0000e-005		0.0112
Unmitigated	1.3415	5.0000e-005	5.1600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0106	0.0106	3.0000e-005		0.0112

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3068					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.0341					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.2000e-004	5.0000e-005	5.1600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0106	0.0106	3.0000e-005		0.0112
Total	**1.3415**	**5.0000e-005**	**5.1600e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**0.0106**	**0.0106**	**3.0000e-005**		**0.0112**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3068					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.0341					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.2000e-004	5.0000e-005	5.1600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0106	0.0106	3.0000e-005		0.0112
Total	**1.3415**	**5.0000e-005**	**5.1600e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**0.0106**	**0.0106**	**3.0000e-005**		**0.0112**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Vegetation

Project Home Improvement Superstore

San Francisco Bay Area Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Home Improvement Superstore	48.32	1000sqft	1.60	48,324.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2014
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - proj site appx 1.6 acre based on site plans

Vehicle Trips - client provided traffic study

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	48,320.00	48,324.00
tblLandUse	LotAcreage	1.11	1.60
tblVehicleTrips	ST_TR	56.72	30.75
tblVehicleTrips	SU_TR	55.80	30.75
tblVehicleTrips	WD_TR	29.80	30.75

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	112.3340	26.6554	21.5102	0.0259	5.8750	1.6071	7.1823	2.9737	1.5031	4.1764	0.0000	2,569.9309	2,569.9309	0.6295	0.0000	2,583.1494
Total	**112.3340**	**26.6554**	**21.5102**	**0.0259**	**5.8750**	**1.6071**	**7.1823**	**2.9737**	**1.5031**	**4.1764**	**0.0000**	**2,569.9309**	**2,569.9309**	**0.6295**	**0.0000**	**2,583.1494**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	112.3340	26.6554	21.5102	0.0259	5.8750	1.6071	7.1823	2.9737	1.5031	4.1764	0.0000	2,569.9309	2,569.9309	0.6295	0.0000	2,583.1494
Total	**112.3340**	**26.6554**	**21.5102**	**0.0259**	**5.8750**	**1.6071**	**7.1823**	**2.9737**	**1.5031**	**4.1764**	**0.0000**	**2,569.9309**	**2,569.9309**	**0.6295**	**0.0000**	**2,583.1494**

	ROG	NOx	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**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.3415	5.0000e-005	5.1600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0106	0.0106	3.0000e-005		0.0112
Energy	3.5600e-003	0.0323	0.0272	1.9000e-004		2.4600e-003	2.4600e-003		2.4600e-003	2.4600e-003		38.7838	38.7838	7.4000e-004	7.1000e-004	39.0198
Mobile	5.8959	8.7542	48.2732	0.0483	3.3751	0.1125	3.4876	0.9028	0.1031	1.0059		4,439.5219	4,439.5219	0.2511		4,444.7947
Total	**7.2410**	**8.7866**	**48.3055**	**0.0485**	**3.3751**	**0.1149**	**3.4900**	**0.9028**	**0.1056**	**1.0084**		**4,478.3163**	**4,478.3163**	**0.2519**	**7.1000e-004**	**4,483.8258**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.3415	5.0000e-005	5.1600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0106	0.0106	3.0000e-005		0.0112
Energy	3.5600e-003	0.0323	0.0272	1.9000e-004		2.4600e-003	2.4600e-003		2.4600e-003	2.4600e-003		38.7838	38.7838	7.4000e-004	7.1000e-004	39.0198
Mobile	5.8959	8.7542	48.2732	0.0483	3.3751	0.1125	3.4876	0.9028	0.1031	1.0059		4,439.5219	4,439.5219	0.2511		4,444.7947
Total	**7.2410**	**8.7866**	**48.3055**	**0.0485**	**3.3751**	**0.1149**	**3.4900**	**0.9028**	**0.1056**	**1.0084**		**4,478.3163**	**4,478.3163**	**0.2519**	**7.1000e-004**	**4,483.8258**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2017	1/27/2017	5	20	
2	Site Preparation	Site Preparation	1/28/2017	1/31/2017	5	2	
3	Grading	Grading	2/1/2017	2/6/2017	5	4	
4	Building Construction	Building Construction	2/7/2017	11/13/2017	5	200	
5	Paving	Paving	11/14/2017	11/27/2017	5	10	
6	Architectural Coating	Architectural Coating	11/28/2017	12/11/2017	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 72,486; Non-Residential Outdoor: 24,162 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	174	0.41
Grading	Rubber Tired Dozers	1	6.00	255	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	226	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	125	0.42
Paving	Paving Equipment	1	8.00	130	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	15.00	8.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	3.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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	lb/day										lb/day					
Off-Road	2.7216	26.5855	20.8712	0.0245		1.6062	1.6062		1.5022	1.5022		2,457.4682	2,457.4682	0.6235		2,470.5620
Total	**2.7216**	**26.5855**	**20.8712**	**0.0245**		**1.6062**	**1.6062**		**1.5022**	**1.5022**		**2,457.4682**	**2,457.4682**	**0.6235**		**2,470.5620**

3.2 Demolition - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0469	0.0700	0.6390	1.3900e-003	0.1226	9.4000e-004	0.1235	0.0325	8.7000e-004	0.0334		112.4627	112.4627	5.9400e-003		112.5874
Total	**0.0469**	**0.0700**	**0.6390**	**1.3900e-003**	**0.1226**	**9.4000e-004**	**0.1235**	**0.0325**	**8.7000e-004**	**0.0334**		**112.4627**	**112.4627**	**5.9400e-003**		**112.5874**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.7216	26.5855	20.8712	0.0245		1.6062	1.6062		1.5022	1.5022	0.0000	2,457.4682	2,457.4682	0.6235		2,470.5620
Total	**2.7216**	**26.5855**	**20.8712**	**0.0245**		**1.6062**	**1.6062**		**1.5022**	**1.5022**	**0.0000**	**2,457.4682**	**2,457.4682**	**0.6235**		**2,470.5620**

3.2 Demolition - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0469	0.0700	0.6390	1.3900e-003	0.1226	9.4000e-004	0.1235	0.0325	8.7000e-004	0.0334		112.4627	112.4627	5.9400e-003		112.5874
Total	**0.0469**	**0.0700**	**0.6390**	**1.3900e-003**	**0.1226**	**9.4000e-004**	**0.1235**	**0.0325**	**8.7000e-004**	**0.0334**		**112.4627**	**112.4627**	**5.9400e-003**		**112.5874**

3.3 Site Preparation - 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	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	2.3109	24.2288	15.9299	0.0171		1.3067	1.3067		1.2022	1.2022		1,752.1239	1,752.1239	0.5369		1,763.3977
Total	**2.3109**	**24.2288**	**15.9299**	**0.0171**	**5.7996**	**1.3067**	**7.1063**	**2.9537**	**1.2022**	**4.1559**		**1,752.1239**	**1,752.1239**	**0.5369**		**1,763.3977**

3.3 Site Preparation - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0289	0.0431	0.3932	8.6000e-004	0.0754	5.8000e-004	0.0760	0.0200	5.3000e-004	0.0205		69.2078	69.2078	3.6500e-003		69.2845
Total	**0.0289**	**0.0431**	**0.3932**	**8.6000e-004**	**0.0754**	**5.8000e-004**	**0.0760**	**0.0200**	**5.3000e-004**	**0.0205**		**69.2078**	**69.2078**	**3.6500e-003**		**69.2845**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	2.3109	24.2288	15.9299	0.0171		1.3067	1.3067		1.2022	1.2022	0.0000	1,752.1239	1,752.1239	0.5369		1,763.3977
Total	**2.3109**	**24.2288**	**15.9299**	**0.0171**	**5.7996**	**1.3067**	**7.1063**	**2.9537**	**1.2022**	**4.1559**	**0.0000**	**1,752.1239**	**1,752.1239**	**0.5369**		**1,763.3977**

3.3 Site Preparation - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0289	0.0431	0.3932	8.6000e-004	0.0754	5.8000e-004	0.0760	0.0200	5.3000e-004	0.0205		69.2078	69.2078	3.6500e-003		69.2845
Total	**0.0289**	**0.0431**	**0.3932**	**8.6000e-004**	**0.0754**	**5.8000e-004**	**0.0760**	**0.0200**	**5.3000e-004**	**0.0205**		**69.2078**	**69.2078**	**3.6500e-003**		**69.2845**

3.4 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	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.8844	19.7889	13.1786	0.0141		1.0661	1.0661		0.9808	0.9808		1,439.1894	1,439.1894	0.4410		1,448.4496
Total	**1.8844**	**19.7889**	**13.1786**	**0.0141**	**4.9143**	**1.0661**	**5.9804**	**2.5256**	**0.9808**	**3.5064**		**1,439.1894**	**1,439.1894**	**0.4410**		**1,448.4496**

3.4 Grading - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0289	0.0431	0.3932	8.6000e-004	0.0754	5.8000e-004	0.0760	0.0200	5.3000e-004	0.0205		69.2078	69.2078	3.6500e-003		69.2845
Total	**0.0289**	**0.0431**	**0.3932**	**8.6000e-004**	**0.0754**	**5.8000e-004**	**0.0760**	**0.0200**	**5.3000e-004**	**0.0205**		**69.2078**	**69.2078**	**3.6500e-003**		**69.2845**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.8844	19.7889	13.1786	0.0141		1.0661	1.0661		0.9808	0.9808	0.0000	1,439.1894	1,439.1894	0.4410		1,448.4496
Total	**1.8844**	**19.7889**	**13.1786**	**0.0141**	**4.9143**	**1.0661**	**5.9804**	**2.5256**	**0.9808**	**3.5064**	**0.0000**	**1,439.1894**	**1,439.1894**	**0.4410**		**1,448.4496**

3.4 Grading - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0289	0.0431	0.3932	8.6000e-004	0.0754	5.8000e-004	0.0760	0.0200	5.3000e-004	0.0205		69.2078	69.2078	3.6500e-003		69.2845
Total	**0.0289**	**0.0431**	**0.3932**	**8.6000e-004**	**0.0754**	**5.8000e-004**	**0.0760**	**0.0200**	**5.3000e-004**	**0.0205**		**69.2078**	**69.2078**	**3.6500e-003**		**69.2845**

3.5 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	lb/day										lb/day					
Off-Road	2.9546	19.1088	14.3110	0.0220		1.2257	1.2257		1.1823	1.1823		2,034.2860	2,034.2860	0.4268		2,043.2497
Total	**2.9546**	**19.1088**	**14.3110**	**0.0220**		**1.2257**	**1.2257**		**1.1823**	**1.1823**		**2,034.2860**	**2,034.2860**	**0.4268**		**2,043.2497**

3.5 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1036	0.7274	1.3595	1.9000e-003	0.0532	0.0104	0.0636	0.0152	9.5700e-003	0.0248		186.6526	186.6526	1.4800e-003		186.6836
Worker	0.0542	0.0807	0.7373	1.6100e-003	0.1415	1.0800e-003	0.1425	0.0375	1.0000e-003	0.0385		129.7647	129.7647	6.8500e-003		129.9085
Total	**0.1577**	**0.8081**	**2.0968**	**3.5100e-003**	**0.1946**	**0.0115**	**0.2061**	**0.0527**	**0.0106**	**0.0633**		**316.4172**	**316.4172**	**8.3300e-003**		**316.5920**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9546	19.1088	14.3110	0.0220		1.2257	1.2257		1.1823	1.1823	0.0000	2,034.2860	2,034.2860	0.4268		2,043.2497
Total	**2.9546**	**19.1088**	**14.3110**	**0.0220**		**1.2257**	**1.2257**		**1.1823**	**1.1823**	**0.0000**	**2,034.2860**	**2,034.2860**	**0.4268**		**2,043.2497**

3.5 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1036	0.7274	1.3595	1.9000e-003	0.0532	0.0104	0.0636	0.0152	9.5700e-003	0.0248		186.6526	186.6526	1.4800e-003		186.6836
Worker	0.0542	0.0807	0.7373	1.6100e-003	0.1415	1.0800e-003	0.1425	0.0375	1.0000e-003	0.0385		129.7647	129.7647	6.8500e-003		129.9085
Total	**0.1577**	**0.8081**	**2.0968**	**3.5100e-003**	**0.1946**	**0.0115**	**0.2061**	**0.0527**	**0.0106**	**0.0633**		**316.4172**	**316.4172**	**8.3300e-003**		**316.5920**

3.6 Paving - 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	lb/day										lb/day					
Off-Road	1.1857	12.0981	9.0308	0.0133		0.7333	0.7333		0.6755	0.6755		1,347.6575	1,347.6575	0.4052		1,356.1677
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1857**	**12.0981**	**9.0308**	**0.0133**		**0.7333**	**0.7333**		**0.6755**	**0.6755**		**1,347.6575**	**1,347.6575**	**0.4052**		**1,356.1677**

3.6 Paving - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0469	0.0700	0.6390	1.3900e-003	0.1226	9.4000e-004	0.1235	0.0325	8.7000e-004	0.0334		112.4627	112.4627	5.9400e-003		112.5874
Total	**0.0469**	**0.0700**	**0.6390**	**1.3900e-003**	**0.1226**	**9.4000e-004**	**0.1235**	**0.0325**	**8.7000e-004**	**0.0334**		**112.4627**	**112.4627**	**5.9400e-003**		**112.5874**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1857	12.0981	9.0308	0.0133		0.7333	0.7333		0.6755	0.6755	0.0000	1,347.6575	1,347.6575	0.4052		1,356.1677
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1857**	**12.0981**	**9.0308**	**0.0133**		**0.7333**	**0.7333**		**0.6755**	**0.6755**	**0.0000**	**1,347.6575**	**1,347.6575**	**0.4052**		**1,356.1677**

3.6 Paving - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0469	0.0700	0.6390	1.3900e-003	0.1226	9.4000e-004	0.1235	0.0325	8.7000e-004	0.0334		112.4627	112.4627	5.9400e-003		112.5874
Total	**0.0469**	**0.0700**	**0.6390**	**1.3900e-003**	**0.1226**	**9.4000e-004**	**0.1235**	**0.0325**	**8.7000e-004**	**0.0334**		**112.4627**	**112.4627**	**5.9400e-003**		**112.5874**

3.7 Architectural Coating - 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	lb/day										lb/day					
Archit. Coating	111.9909					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.0721
Total	**112.3232**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**		**281.4481**	**281.4481**	**0.0297**		**282.0721**

3.7 Architectural Coating - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0108	0.0161	0.1475	3.2000e-004	0.0283	2.2000e-004	0.0285	7.5000e-003	2.0000e-004	7.7000e-003		25.9529	25.9529	1.3700e-003		25.9817
Total	**0.0108**	**0.0161**	**0.1475**	**3.2000e-004**	**0.0283**	**2.2000e-004**	**0.0285**	**7.5000e-003**	**2.0000e-004**	**7.7000e-003**		**25.9529**	**25.9529**	**1.3700e-003**		**25.9817**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	111.9909					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297		282.0721
Total	**112.3232**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**	**0.0000**	**281.4481**	**281.4481**	**0.0297**		**282.0721**

3.7 Architectural Coating - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0108	0.0161	0.1475	3.2000e-004	0.0283	2.2000e-004	0.0285	7.5000e-003	2.0000e-004	7.7000e-003		25.9529	25.9529	1.3700e-003		25.9817
Total	**0.0108**	**0.0161**	**0.1475**	**3.2000e-004**	**0.0283**	**2.2000e-004**	**0.0285**	**7.5000e-003**	**2.0000e-004**	**7.7000e-003**		**25.9529**	**25.9529**	**1.3700e-003**		**25.9817**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.8959	8.7542	48.2732	0.0483	3.3751	0.1125	3.4876	0.9028	0.1031	1.0059		4,439.5219	4,439.5219	0.2511		4,444.7947
Unmitigated	5.8959	8.7542	48.2732	0.0483	3.3751	0.1125	3.4876	0.9028	0.1031	1.0059		4,439.5219	4,439.5219	0.2511		4,444.7947

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Home Improvement Superstore	1,485.84	1,485.84	1485.84	1,589,803	1,589,803
Total	1,485.84	1,485.84	1,485.84	1,589,803	1,589,803

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
Home Improvement Superstore	9.50	7.30	7.30	23.40	57.60	19.00	32	20	48

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.546249	0.062948	0.174600	0.125189	0.034587	0.004960	0.015036	0.022157	0.002053	0.003311	0.006538	0.000702	0.001670

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	3.5600e-003	0.0323	0.0272	1.9000e-004		2.4600e-003	2.4600e-003		2.4600e-003	2.4600e-003		38.7838	38.7838	7.4000e-004	7.1000e-004	39.0198
NaturalGas Unmitigated	3.5600e-003	0.0323	0.0272	1.9000e-004		2.4600e-003	2.4600e-003		2.4600e-003	2.4600e-003		38.7838	38.7838	7.4000e-004	7.1000e-004	39.0198

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Home Improvement Superstore	329.662	3.5600e-003	0.0323	0.0272	1.9000e-004		2.4600e-003	2.4600e-003		2.4600e-003	2.4600e-003		38.7838	38.7838	7.4000e-004	7.1000e-004	39.0198
Total		**3.5600e-003**	**0.0323**	**0.0272**	**1.9000e-004**		**2.4600e-003**	**2.4600e-003**		**2.4600e-003**	**2.4600e-003**		**38.7838**	**38.7838**	**7.4000e-004**	**7.1000e-004**	**39.0198**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Home Improvement Superstore	0.329662	3.5600e-003	0.0323	0.0272	1.9000e-004		2.4600e-003	2.4600e-003		2.4600e-003	2.4600e-003		38.7838	38.7838	7.4000e-004	7.1000e-004	39.0198
Total		**3.5600e-003**	**0.0323**	**0.0272**	**1.9000e-004**		**2.4600e-003**	**2.4600e-003**		**2.4600e-003**	**2.4600e-003**		**38.7838**	**38.7838**	**7.4000e-004**	**7.1000e-004**	**39.0198**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.3415	5.0000e-005	5.1600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0106	0.0106	3.0000e-005		0.0112
Unmitigated	1.3415	5.0000e-005	5.1600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0106	0.0106	3.0000e-005		0.0112

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3068					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.0341					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.2000e-004	5.0000e-005	5.1600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0106	0.0106	3.0000e-005		0.0112
Total	**1.3415**	**5.0000e-005**	**5.1600e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**0.0106**	**0.0106**	**3.0000e-005**		**0.0112**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3068					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.0341					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.2000e-004	5.0000e-005	5.1600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0106	0.0106	3.0000e-005		0.0112
Total	**1.3415**	**5.0000e-005**	**5.1600e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**0.0106**	**0.0106**	**3.0000e-005**		**0.0112**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Vegetation

Appendix B

Health Risk Assessment

HEALTH RISK ASSESSMENT
for the
Oppidan Online Ordering Grocery Store Project

City of Sunnyvale, State of California

Consultant:

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Irvine, California 92618
Contact: Mr. Achilles Malisos
949.472.3505

November 20, 2015

JN 149354

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LIST OF ACRONYMS

$\mu g/m^3$	micrograms per cubic meter
AB	Assembly Bill
AT	averaging time
ATCM	Air Toxic Control Measure
BAAQMD	Bay Area Air Quality Management District
BR/BW	daily breathing weight normalized to body weight
Cal-EPA	California Environmental Protection Agency
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCAA	California Clean Air Act
CEQA	California Environmental Quality Act
CF	conversion factor
C_i	concentration in the air of substance i
DBR	daily breathing rate
DPM	Diesel Particulate Matter
ED	exposure duration
EF	exposure frequency
EPA	U.S. Environmental Protection Agency
ºF	Fahrenheit
FAH	fraction of time at home
FCAA	Federal Clean Air Act
GVWR	gross vehicle weight rating
HAP	hazardous air pollutant
kg	kilograms
L	liter
MEIR	maximally exposed individual resident
mg	milligrams
MSAT	Mobile Source Air Toxic
N/A	Not Applicable
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NO_2	nitrogen dioxide
NO_x	nitrogen oxides
OEHHA	Office Environmental Health Hazard Assessment
PM	particulate matter
PM_{10}	particulate matter less than 10 microns in diameter
$PM_{2.5}$	particulate matter less than 2.5 microns in diameter

ppm	parts per million
REL	Reference Exposure Level
SB	Senate Bill
T-BACT	toxics best available control technology
TAC	Toxic Air Contaminant
VMT	vehicle miles traveled

1.0 INTRODUCTION

The purpose of this Health Risk Assessment is to evaluate potential health risks associated with Toxic Air Contaminants (TAC) including Diesel Particulate Matter (DPM) resulting from the construction of the proposed Oppidan Online Ordering Grocery Store Project (project) in the City of Sunnyvale, California. This Health Risk Assessment was prepared in accordance with the requirements of the Bay Area Air Quality Management District (BAAQMD) and guidance from the Office of Environmental Health Hazard Assessment (OEHHA) to determine if health risks are likely to occur from the proposed project.

1.1 PROJECT LOCATION

The project site is located at 777 Sunnyvale-Saratoga Road, approximately 500 feet north of the South Mathilda Avenue and Sunnyvale-Saratoga Road intersection in the City of Sunnyvale, California; refer to Exhibit 1, *Regional Vicinity*. The site comprises one parcel with an existing lumber pick-up building and parking area. The property is directly north of the Fall River Terrace residential development, directly east of South Mathilda Avenue, and directly south of the West Sunnyvale Shopping Center and Cherry Orchard Apartments; refer to Exhibit 2, *Site Vicinity*. The site is designated and zoned Highway/Central Business under the City of Sunnyvale General Plan and Zoning Code.

1.2 PROJECT DESCRIPTION

The project involves construction of an 11,600 square foot building on the 1.6-acre project site that would be operated as a take-out grocery store with nine parking stalls designated for customers waiting for their orders to be brought to their vehicle; refer to Exhibit 3, *Site Plan*. The take-out grocery store would operate by having customers place their order in advance; drive to the site; and park in the on-site parking stalls to have their order brought out to their vehicle. The proposed project would include operational controls that would prevent significant localized air quality impacts, including scheduling to limit vehicle queueing and discouraging vehicle idling and queuing beyond five cars in each of the nine provided spaces on- site. The grocery store would be open from 7:00 AM to 10:00 PM daily, and the project applicant estimates serving a maximum of 40 cars per hour during peak hours (expected to be 3:00 PM to 7:00 PM on weekdays). Three to four truck heavy truck deliveries would occur at the project site per day (or 15-20 truck deliveries per week). All trucks would be equipped with transport refrigeration units (TRUs).

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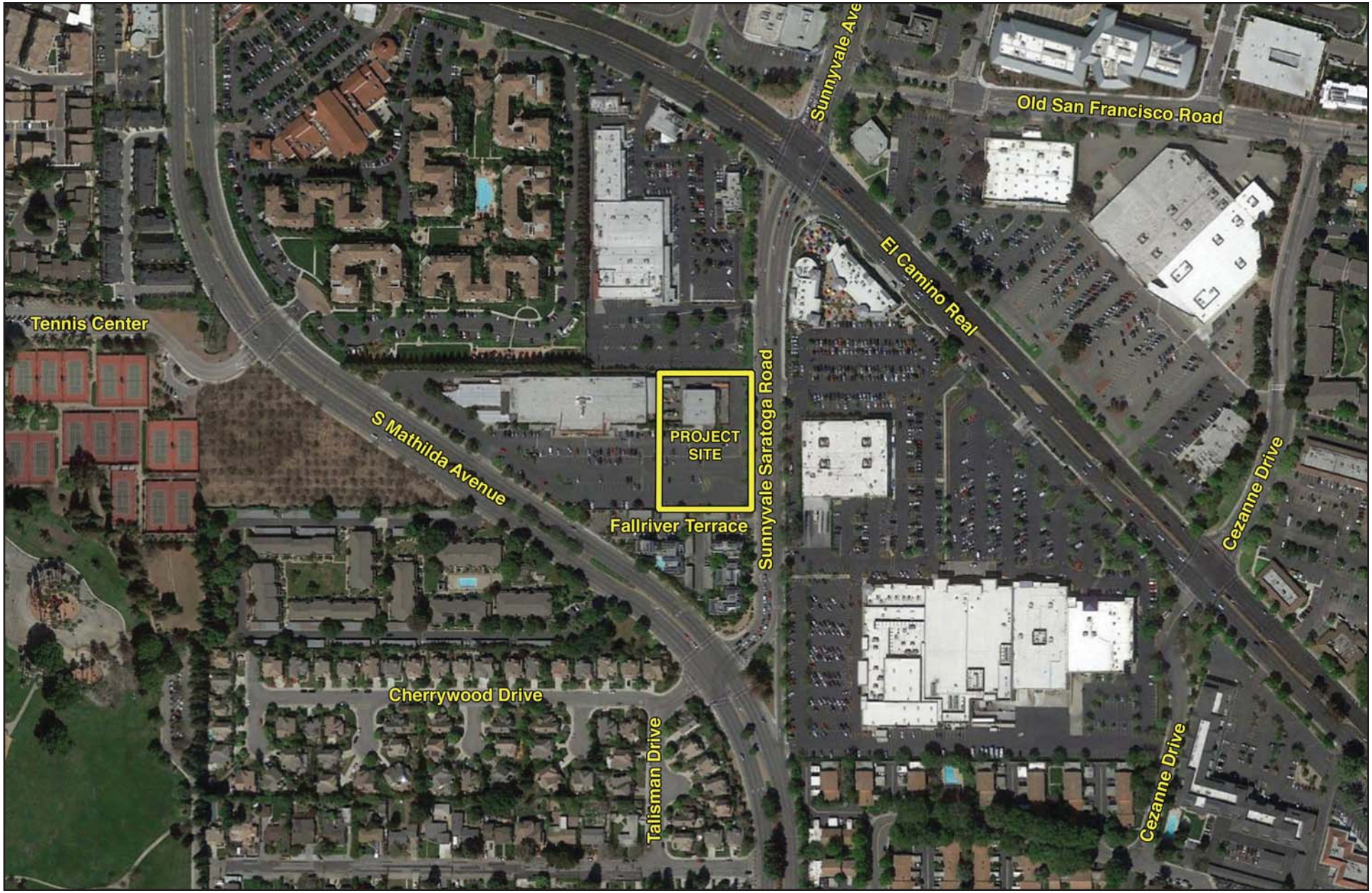
HEALTH RISK ASSESSMENT
OPPIDAN ONLINE ORDERING GROCERY STORE

Regional Vicinity

Exhibit 1



Source: Google Earth 2015.

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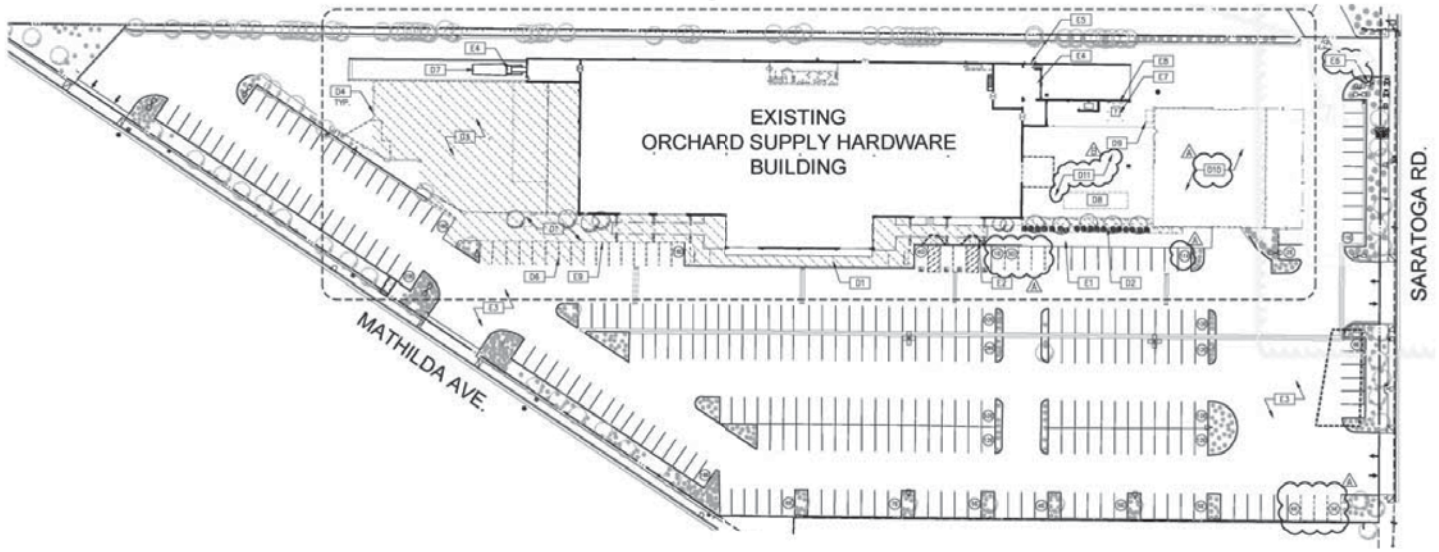
HEALTH RISK ASSESSMENT
OPPIDAN ONLINE ORDERING GROCERY STORE

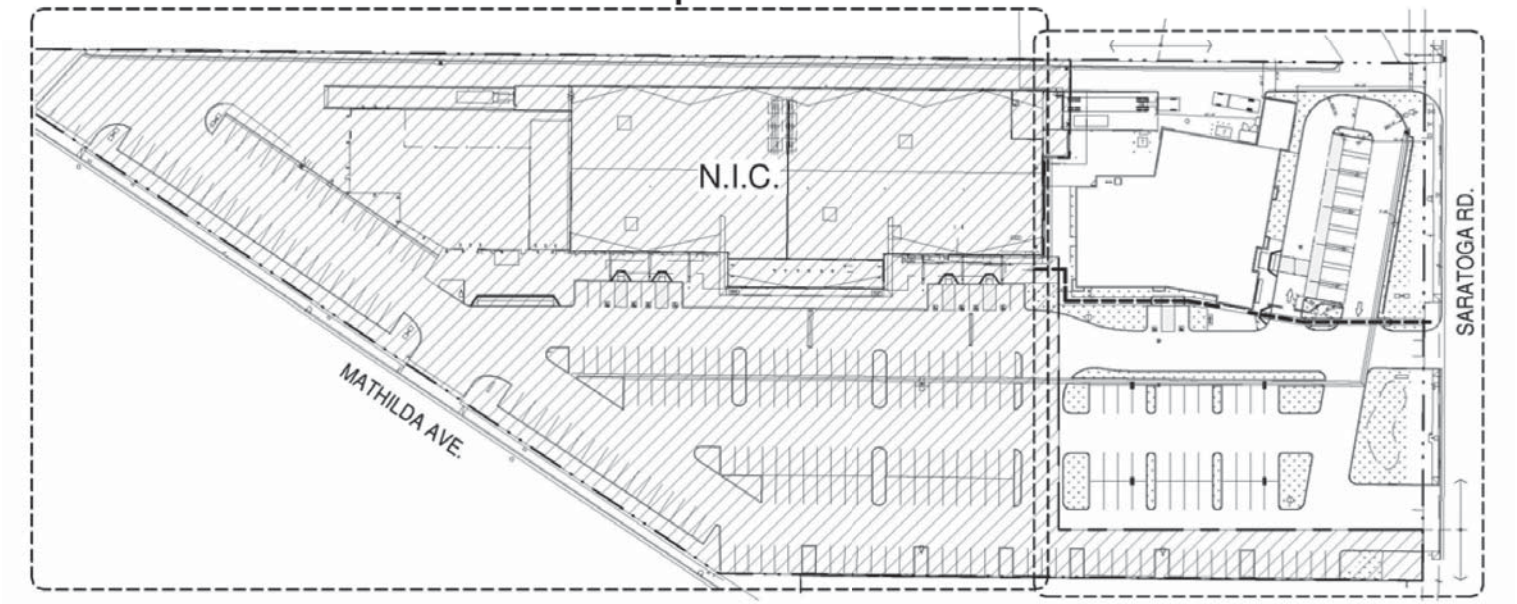
Site Vicinity

Exhibit 2

Existing Site Plan



Proposed Site Plan



Source: TKJM.

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HEALTH RISK ASSESSMENT
OPPIDAN ONLINE ORDERING GROCERY STORE

Site Plan

Exhibit 3

2.0 EXISTING SETTING

2.1 CLIMATE AND METEOROLOGY

The California Air Resources Board (CARB) divides the State into 15 air basins that share similar meteorological and topographical features. The project site is located within the San Francisco Bay Area Air Basin (Basin). This Basin comprises all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo and Santa Clara counties, the southern portion of Sonoma County, and the southwestern portion of Solano County. Air quality in this area is determined by such natural factors as topography, meteorology and climate, in addition to the presence of existing air pollution sources and ambient conditions. These factors along with applicable regulations are discussed below.

The City of Sunnyvale is located in the Santa Clara Valley climatological subregion of the Basin. This subregion is bounded by the San Francisco Bay to the north and by mountains to the east, south, and west. Temperatures are warm on summer days and cool on summer nights, and winter temperatures are fairly mild. At the northern end of the valley, mean maximum temperatures are in the low 80's during the summer and the high 50's during the winter, and mean minimum temperatures range from the high 50's in the summer to the low 40's in the winter. Further inland, where the moderating effect of the Bay is not as strong, temperature extremes are greater. For example, in San Martin, located 27 miles south of the San Jose Airport, temperatures can be more than 10 degrees warmer on summer afternoons and more than 10 degrees cooler on winter nights.

Winds in the valley are greatly influenced by the terrain, resulting in a prevailing flow that roughly parallels the valley's northwest-southeast axis. A north-northwesterly sea breeze flows through the valley during the afternoon and early evening, and a light south-southeasterly drainage flow occurs during the late evening and early morning. In the summer the southern end of the valley sometimes becomes a "convergence zone," when air flowing from the Monterey Bay gets channeled northward into the southern end of the valley and meets with the prevailing north-northwesterly winds.

Wind speeds are greatest in the spring and summer and weakest in the fall and winter. Nighttime and early morning hours frequently have calm winds in all seasons, while summer afternoons and evenings are quite breezy. Strong winds are rare, associated mostly with the occasional winter storm.

The air pollution potential of the Santa Clara Valley is high. High summer temperatures, stable air, and mountains surrounding the valley combine to promote ozone formation. In addition to the many local sources of pollution, ozone precursors from San Francisco, San Mateo, and Alameda Counties are carried by prevailing winds to the Santa Clara Valley. The valley tends to channel pollutants to the southeast. In addition, on summer days with low level inversions, ozone can be recirculated by southerly drainage flows in the late evening and early morning and by the prevailing northwesterlies in the afternoon. A similar recirculation pattern occurs in the

winter, affecting levels of carbon monoxide and particulate matter. This movement of the air up and down the valley increases the impact of the pollutants significantly.

Pollution sources are plentiful and complex in this subregion. The Santa Clara Valley has a high concentration of industry at the northern end, in the Silicon Valley. Some of these industries are sources of air toxics as well as criteria air pollutants. In addition, Santa Clara Valley's large population and many work-site destinations generate the highest mobile source emissions of any subregion in the Basin.

2.2 TOXIC AIR CONTAMINANTS

TACs are airborne substances that are capable of causing short-term (acute) and/or long-term (chronic or carcinogenic, i.e., cancer causing) adverse human health effects (i.e., injury or illness). TACs include both organic and inorganic chemical substances. They may be emitted from a variety of common sources including gasoline stations, automobiles, dry cleaners, industrial operations, and painting operations. The current California list of TACs includes approximately 200 compounds, including particulate emissions from diesel-fueled engines.

Hazardous Air Pollutants (HAP) is a term used by the Federal Clean Air Act (FCAA) that includes a variety of pollutants generated or emitted by industrial production activities. Identified as TACs under the California Clean Air Act (CCAA), ten have been singled out through ambient air quality data as being the most substantial health risk in California. Direct exposure to these pollutants has been shown to cause cancer, birth defects, damage to the brain and nervous system, and respiratory disorders. CARB provides emission inventories for only the larger air basins.

TACs do not have ambient air quality standards because no safe levels of TACs can be determined. Instead, TAC impacts are evaluated by calculating the health risks associated with a given exposure. The requirements of the Air Toxic "Hot Spots" Information and Assessment Act (Assembly Bill [AB] 2588) apply to facilities that use, produce, or emit toxic chemicals. Facilities subject to the toxic emission inventory requirements of the act must prepare and submit toxic emission inventory plans and reports, and periodically update those reports.

Toxic contaminants often result from fugitive emissions during fuel storage and transfer activities, and from leaking valves and pipes. The electronics industry, including semiconductor manufacturing, uses highly toxic chlorinated solvents in semiconductor production processes. Sources of air toxics go beyond industry, however. Automobile exhaust also contains toxic air pollutants such as benzene and 1,3-butadiene. The following are health effects related to common Toxic Air Contaminants:

Acetaldehyde. Acetaldehyde is directly emitted into the atmosphere and is also formed in the atmosphere from photochemical oxidation. Acetaldehyde is generated as exhaust from mobile sources and fuel combustion from stationary internal combustion engines, boilers, and process heaters. Acetaldehyde is a carcinogen that can also cause chronic non-cancer toxicity in the respiratory system. Symptoms of chronic intoxication of acetaldehyde in humans resemble those

of alcoholism. The primary short-term effect of inhalation exposure to acetaldehyde is irritation of the eyes, skin, and respiratory tract. At higher exposure levels, erythematic, coughing, and pulmonary edema, and necrosis may also occur.

Benzene. Approximately 84 percent of the benzene emitted in California comes from motor vehicles, including evaporative leakage and unburned fuel exhaust. Benzene is highly carcinogenic and occurs throughout California. Benzene also has non-cancer health effects. Brief inhalation exposure to high concentrations can cause central nervous system symptoms of nausea, tremors, drowsiness, dizziness, headache, intoxication, and unconsciousness.

Neurological symptoms of inhalation exposure to benzene include drowsiness, dizziness, headaches, and unconsciousness. Ingestion of large amounts of benzene may result in vomiting, dizziness, and convulsions. Exposure to liquid and vapor may irritate the skin, eyes, and upper respiratory tract. Redness and blisters may result from dermal exposure to benzene. Chronic inhalation of certain levels of benzene causes blood disorders because benzene specifically affects bone marrow, which produces blood cells. Aplastic anemia, excessive bleeding, and damage to the immune system (by changes in blood levels of antibodies and loss of white blood cells) may develop. Increased incidence of leukemia (cancer of the tissues that form white blood cells) has been observed in humans occupationally exposed to benzene.

1,3-Butadiene. The majority of 1,3-butadiene emissions comes from incomplete combustion of gasoline and diesel fuels. 1,3-butadiene has been identified as a carcinogen in California. Butadiene vapors at elevated levels cause neurological effects such as blurred vision, fatigue, headache, and vertigo. Dermal exposure to 1,3-butadiene causes a sensation of cold, followed by a burning sensation, and can lead to frostbite. Chronic exposure to 1,3-butadiene via inhalation has been shown to result in an increase in cardiovascular diseases, and increase in the occurrence of leukemia, and an increased incidence of respiratory, bladder, stomach, and lymphato-hematopoietic cancers.

Carbon Tetrachloride. The primary sources of carbon tetrachloride in California include chemical manufacturing facilities and petroleum refineries. Carbon tetrachloride has been identified as a probable human carcinogen in California. Carbon tetrachloride is also a central nervous system depressant and mild eye and respiratory tract irritant. Acute inhalation and oral exposures to high levels of carbon tetrachloride can damage the liver and kidneys in humans and animals. Symptoms of acute exposure in humans include headache, weakness, lethargy, nausea, and vomiting.

Chromium, Hexavalent. Chromium planting and other metal finishing processes are the primary sources of hexavalent chromium emissions in California. California has identified hexavalent chromium as a carcinogen. Exposure to inhaled hexavalent chromium may result in lung cancer, and short-term exposure symptoms may include renal toxicity, gastrointestinal hemorrhage, and intravascular hemolysis.

Inhalation exposure of hexavalent exposure targets the respiratory tract. Exposure to very high concentrations of hexavalent chromium can include burns, effects on the respiratory tract such as

perforations and ulcerations of the septum, bronchitis, decreased pulmonary function, pneumonia, asthma, and nasal itching and soreness. Chronic human exposure to high levels of hexavalent chromium by inhalation or oral exposure may adversely affect the liver, kidney, and gastrointestinal and immune system.

Para-Dichlorobenzene. The primary sources of para-dichlorobenzene include consumer products such as non-aerosol insect repellents and solid air fresheners. These sources contribute 99 percent of statewide para-dichlorobenzene emissions. In California, para-dichlorobenzene has been identified as a carcinogen. Acute exposure to 1,4-dichlorobenzene via inhalation in humans results in irritation to the eyes, skin, and throat. In addition, long-term inhalation exposure may affect the liver, skin, and central nervous system.

Formaldehyde. Formaldehyde is both directly emitted into the atmosphere and formed in the atmosphere as a result of photochemical oxidation. Formaldehyde is a product of incomplete combustion, and one of the primary sources of formaldehyde is vehicular exhaust. Formaldehyde can also be found in many consumer products as an antimicrobial agent and is used in fumigants and soil disinfectants.

Acute formaldehyde inhalation exposure can result in eye, nose, and throat irritation and effects on the nasal cavity. Other effects seen from exposure to high levels of formaldehyde in humans are coughing, wheezing, chest pains, and bronchitis. Chronic inhalation exposure to formaldehyde has been associated with respiratory symptoms and eye, nose, and throat irritation. In California, formaldehyde has been identified as a carcinogen, and occupational studies have shown associations between exposure to formaldehyde and increased incidence of lung and nasopharyngeal cancer.

Methylene Chloride. Methylene chloride is a solvent used n paint stripping operations and as a blowing and cleaning agent in the manufacture of polyurethane foam and plastic. Paint removers account for the largest use of methylene chloride in California. Inhalation exposure to extremely high levels of methylene chloride can be fatal to humans. Acute inhalation exposure to high levels of methylene chloride can result in decreased visual, auditory, and psychomotor functions, but these effects are reversible once exposure ceases. Methylene chloride also irritates the nose and throat at high concentrations. The major effects from chronic inhalation exposure to methylene chloride are headaches, dizziness, nausea, and memory loss. Chronic exposure can also lead to bone marrow, hepatic, and renal toxicity. California considers methylene chloride to be carcinogenic.

Perchloroethylene. Perchloroethylene is used as a solvent, primarily in dry cleaning operations. Perchloroethylene is also used in degreasing operations, paints and coatings, adhesives, aerosols, specialty chemical production, printing inks, silicones, rug shampoos and laboratory solvents. Perchloroethylene vapors are irritating to the eyes and respiratory tract and chronic exposure can result in liver toxicity, kidney dysfunction, and neurological disorders. California identifies perchloroethylene as a carcinogen.

Diesel Particulate Matter. DPM is emitted from both mobile and stationary sources. In California, on-road diesel-fueled engines contribute approximately 24 percent of the statewide total, with an additional 71 percent attributed to other mobile sources such as construction and mining equipment, agricultural equipment, and transport refrigeration units. Stationary sources contribute about 5 percent of total DPM. It should be noted that CARB has developed several plans and programs to reduce diesel emissions such as the Diesel Risk Reduction Plan (DRRP), the Statewide Portable Equipment Registration Program (PERP), and the Diesel Off-Road Reporting System (DOORS). The PERP and DOORS programs allow owners or operators of portable engines and certain other types of equipment can register their units in order to operate their equipment throughout California without having to obtain individual permits from local air districts.

Diesel exhaust and many individual substances contained in it (including arsenic, benzene, formaldehyde, and nickel) have the potential to contribute to mutations in cells that can lead to cancer. Long-term exposure to diesel exhaust particles poses the highest cancer risk of any TAC evaluated by OEHHA. CARB estimates that about 70 percent of the cancer risk that the average Californian faces from breathing toxic air pollutants stems from diesel exhaust particles.

In its comprehensive assessment of diesel exhaust, OEHHA analyzed more than 30 studies of people who worked around diesel equipment, including truck drivers, railroad workers, and equipment operators. The studies showed these workers were more likely to develop lung cancer than workers who were not exposed to diesel emissions. These studies provide strong evidence that long-term occupational exposure to diesel exhaust increases the risk of lung cancer. Using information from OEHHA's assessment, the CARB estimates that diesel particle levels measured in California's air in 2000 could cause 540 "excess" cancers in a population of 1 million people over a 70-year lifetime. Other researchers and scientific organizations, including the National Institute for Occupational Safety and Health, have calculated cancer risks from diesel exhaust similar to those developed by OEHHA and CARB.

Exposure to diesel exhaust can have immediate health effects. Diesel exhaust can irritate the eyes, nose, throat, and lungs, and it can cause coughs, headaches, lightheadedness, and nausea. In studies with human volunteers, diesel exhaust particles made people with allergies more susceptible to the materials to which they are allergic, such as dust and pollen. Exposure to diesel exhaust also causes inflammation in the lungs, which may aggravate chronic respiratory symptoms and increase the frequency or intensity of asthma attacks.

Diesel engines are a major source of fine particulate pollution. The elderly and people with emphysema, asthma, and chronic heart and lung disease are especially sensitive to fine-particle pollution. Numerous studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems. Because children's lungs and respiratory systems are still developing, they are also more susceptible than healthy adults to fine particles. Exposure to fine particles is associated with increased frequency of childhood illnesses and can also reduce lung function in children. In California, diesel exhaust particles have been identified as a carcinogen.

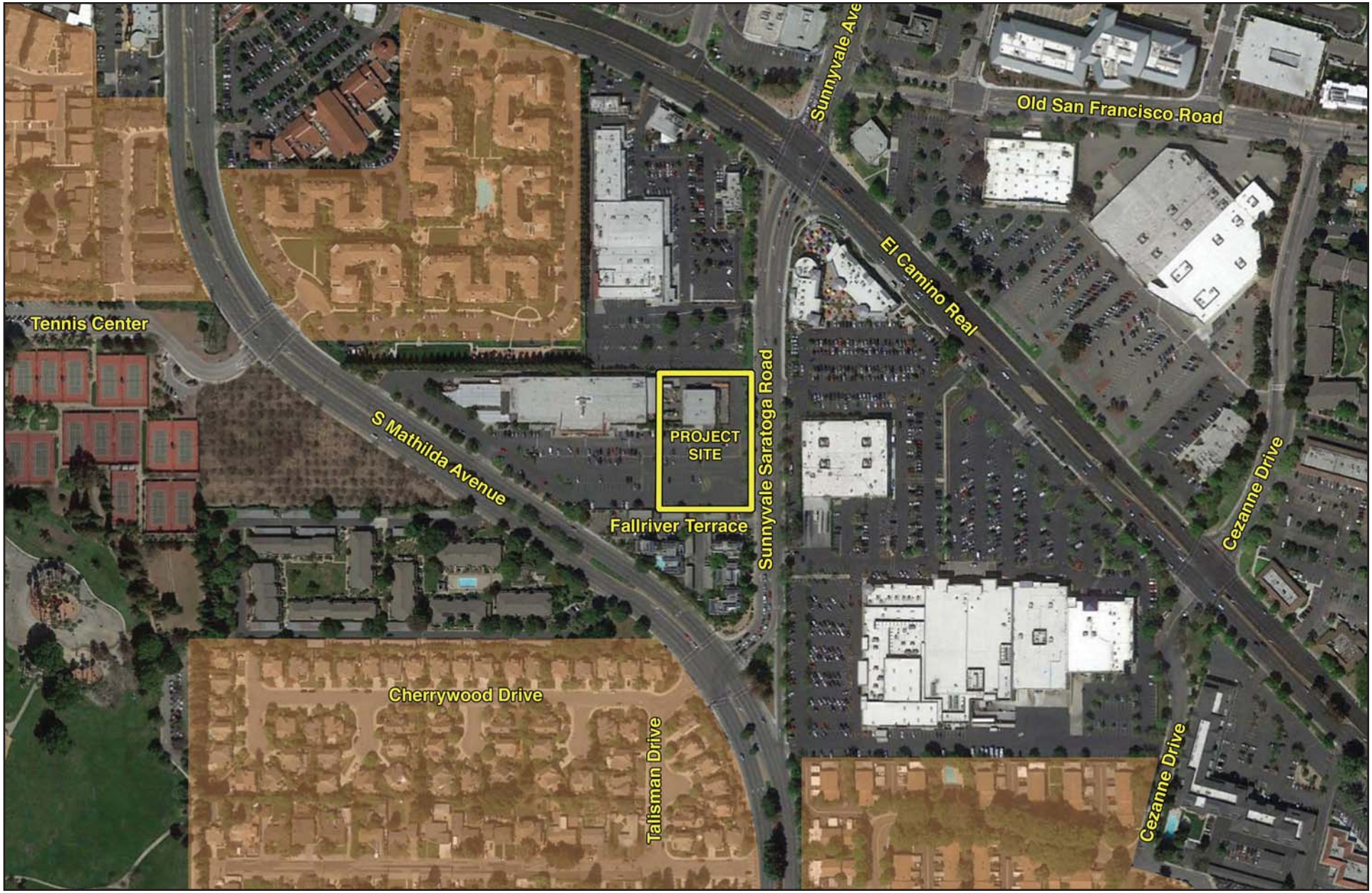
2.3 SENSITIVE RECEPTORS

Sensitive populations are more susceptible to the effects of air pollution than is the general population. Sensitive populations (sensitive receptors) that are in proximity to localized sources of toxics are of particular concern. Land uses considered sensitive receptors include residences, schools, playgrounds, childcare centers, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes. Table 1, *Sensitive Receptors*, lists the distances and locations of sensitive receptors within the project vicinity. The distances depicted in Table 1 are based on the distance from the project site to the sensitive receptor. The closest sensitive receptor to the project boundaries are the multi-family residential units located to the south of the project site at the northeast corner of the South Matilda Avenue and Sunnyvale Saratoga Road Refer to Exhibit 4, *Sensitive Receptors* for a depiction of the project boundaries and surrounding sensitive receptors.

Table 1
Sensitive Receptors

Type	Distance from Project Site (feet)[1]	Direction from Project Site	Location
Single-Family Residential	980	North	Along South Murphy Avenue
Multi-Family Residential	318	Northwest	Cherry Orchard Apartment Homes, 250 W El Camino Real
	1,318	East	Spruce Apartments, 655 South Fair Oaks Avenue
	115	South	Villa Cerise Apartments, northeast corner of South Matilda Avenue and Sunnyvale Saratoga Road
	2,415	West/Southwest	Mathilda Garden Apartments, 777 South Mathilda Avenue

Source: Google Earth 2015.



Source: Google Earth 2015.

- Sensitive Receptors (Residences)

NOT TO SCALE

Michael Baker INTERNATIONAL

11/15 • JN 149354

HEALTH RISK ASSESSMENT
OPPIDAN ONLINE ORDERING GROCERY STORE

Sensitive Receptors

Exhibit 4

3.0 REGULATORY FRAMEWORK

FEDERAL CLEAN AIR ACT

The FCAA was amended in 1990 to address a large number of air pollutants that are known to cause or may reasonably be anticipated to cause adverse effects to human health or adverse environmental effects. 188 specific pollutants and chemical groups were initially identified as HAPs, and the list has been modified over time. The FCAA Amendments included new regulatory programs to control acid deposition and for the issuance of stationary source operating permits.

In 2001, the U.S. Environmental Protection Agency (EPA) issued its first Mobile Source Air Toxics Rule, which identified 21 mobile source air toxic (MSAT) compounds as being HAPs that required regulation. A subset of six of these MSAT compounds were identified as having the greatest influence on health and included benzene, 1,3-butadiene, formaldehyde, acrolein, acetaldehyde, and DPM. More recently, the EPA issued a second MSAT Rule in February 2007, which generally supported the findings in the first rule and provided additional recommendations of compounds having the greatest impact on health. The rule also identified several engine emission certification standards that must be implemented. Unlike the criteria pollutants, toxics do not have National Ambient Air Quality Standards (NAAQS) making evaluation of their impacts more subjective.

National Emissions Standards for Hazardous Air Pollutants (NESHAPs) were incorporated into a greatly expanded program for controlling toxic air pollutants. The provisions for attainment and maintenance of the NAAQS were substantially modified and expanded. Other revisions included provisions regarding stratospheric ozone protection, increased enforcement authority, and expanded research programs.

Section 112 of the FCAA Amendments governs the federal control program for HAPs. NESHAPs are issued to limit the release of specified HAPs from specific industrial sectors. These standards are technology-based, meaning that they represent the best available control technology an industrial sector could afford. The level of emissions controls required by NESHAPs are not based on health risk considerations because allowable releases and resulting concentrations have not been determined to be safe for the general public. The FCAA does not establish air quality standards for HAPs that define legally acceptable concentrations of these pollutants in ambient air.

CALIFORNIA AIR RESOURCES BOARD

CARB's statewide comprehensive air toxics program was established in 1983 with AB 1807 the Toxic Air Contaminant Identification and Control Act (Tanner Air Toxics Act of 1983). AB 1807 created California's program to reduce exposure to air toxics and sets forth a formal procedure for CARB to designate substances as TACs. Once a TAC is identified, CARB adopts an airborne toxics control measure (ATCM) for sources that emit designated TACs. If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure to

below that threshold. If there is no safe threshold, the measure must incorporate toxics best available control technology (T-BACT) to minimize emissions.

CARB also administers the state's mobile source emissions control program and oversees air quality programs established by state statute, such as AB 2588, the Air Toxics "Hot Spots" Information and Assessment Act of 1987. Under AB 2588, TAC emissions from individual facilities are quantified and prioritized by the air quality management district or air pollution control district. High priority facilities are required to perform a health risk assessment and, if specific thresholds are exceeded, required to communicate the results to the public in the form of notices and public meetings. In September 1992, the "Hot Spots" Act was amended by Senate Bill (SB) 1731 which required facilities that pose a significant health risk to the community to reduce their risk through a risk management plan.my cow

Diesel Risk Reduction Plan

The identification of DPM as a TAC in 1998 led CARB to adopt the *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles* (Risk Reduction Plan) in October 2000. The Risk Reduction Plan's goals include an 85 percent reduction in DPM by 2020 from the 2000 baseline.[1] The Risk Reduction Plan includes regulations to establish cleaner new diesel engines, cleaner in-use diesel engines (retrofits), and cleaner diesel fuel.

Truck and Bus Regulation Reducing Emissions from Existing Diesel Vehicles

On December 12, 2008, CARB approved the Truck and Bus Regulation to significantly reduce particulate matter (PM) and oxides of nitrogen (NO_x) emissions from existing diesel vehicles operating in California. The regulation requires diesel trucks and buses that operate in California to be upgraded to reduce emissions. Heavier trucks must be retrofitted with PM filters beginning January 1, 2012, and older trucks must be replaced starting January 1, 2015. By January 1, 2023, nearly all trucks and buses would need to have 2010 model year engines or equivalent.

The regulation applies to nearly all privately and federally owned diesel fueled trucks and buses and to privately and publicly owned school buses with a gross vehicle weight rating (GVWR) greater than 14,000 pounds. Small fleets with three or fewer diesel trucks can delay compliance for heavier trucks by reporting and there are a number of extensions for low-mileage construction trucks, early PM filter retrofits, adding cleaner vehicles, and other situations. Privately and publicly owned school buses have different requirements.

Heavy-Duty Vehicle Idling Emission Reduction Program

The purpose of the CARB Air Toxic Control Measure (ATCM) to Limit Diesel-Fueled Commercial Motor Vehicle Idling is to reduce public exposure to diesel particulate matter and criteria

[1] California Air Resources Board, *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*, October 2000.

pollutants by limiting the idling of diesel-fueled commercial vehicles.[2] The driver of any vehicle subject to this ATCM is prohibited from idling the vehicle's primary diesel engine for greater than five minutes at any location and is prohibited from idling a diesel-fueled auxiliary power system (APS) for more than five minutes to power a heater, air conditioner, or any ancillary equipment on the vehicle if it has a sleeper berth and the truck is located within 100 feet of a restricted area (homes and schools).

CARB Final Regulation Order, Requirements to Reduce Idling Emissions from New and In-Use Trucks, beginning in 2008, would require that new 2008 and subsequent model-year heavy-duty diesel engines be equipped with an engine shutdown system that automatically shuts down the engine after 300 seconds of continuous idling operation once the vehicle is stopped, the transmission is set to "neutral" or "park", and the parking brake is engaged.

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

The BAAQMD has primary responsibility for regulating stationary sources of air pollution situated within its jurisdictional boundaries. To this end, BAAQMD implements air quality programs required by State and Federal mandates, enforces rules and regulations based on air pollution laws, and educates businesses and residents about their role in protecting air quality. The BAAQMD is also responsible for managing and permitting existing, new, and modified sources of air emissions within the Basin to ensure conformance with Federal, State, and local standards for air quality. PM emissions are a serious concern for the BAAQMD.

The BAAQMD has adopted the *California Environmental Quality Act Air Quality Guidelines* (CEQA Guidelines, May 2012). The purpose of the guidelines is to set forth the definitions, procedures, and forms use by the BAAQMD to implement CEQA and to supplement State CEQA guidelines. The guidelines also establish the thresholds for specific pollutants, emissions above which are considered significant. On March 5, 2012 the Alameda County Superior Court issued a judgment finding that the BAAQMD had failed to comply with CEQA when it adopted its CEQA air quality thresholds. The court did not determine whether the thresholds were valid on the merits, but found that the adoption of the thresholds was a project under CEQA. The court issued a writ of mandate ordering the BAAQMD to set aside the thresholds and cease dissemination of them until the BAAQMD had complied with CEQA. The BAAQMD has appealed the Alameda County Superior Court's decision. The Court of Appeal of the State of California, First Appellate District, reversed the trial court's decision. The Court of Appeal's decision was appealed to the California Supreme Court, which granted limited review, and the matter is currently pending there.[3]

As such, the BAAQMD is no longer recommending that the thresholds within the CEQA Guidelines be used as a generally applicable measure of a project's significant air quality impacts.

[2] The ATCM to Limit Diesel-Fueled Commercial Motor Vehicle Idling is codified in Title 13 of the California Code of Regulations, Chapter 10, Section 2485.

[3] Bay Area Air Quality Management District, *Updated CEQA Guidelines*, http://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines, accessed October 29, 2015.

BAAQMD recommends that Lead Agencies will need to determine appropriate air quality thresholds of significance based on substantial evidence in the record. Although Lead Agencies may rely on the BAAQMD's updated CEQA Guidelines (updated May 2012) for assistance in calculating air pollution emissions, obtaining information regarding the health impacts of air pollutants, and identifying potential mitigation measures, the BAAQMD has been ordered to set aside the thresholds and is no longer recommending that these thresholds be used as a general measure of project's significant air quality impacts. Exercising its own discretion as lead agency, the City of Sunnyvale relies on the thresholds within the Options and Justification Report (dated October 2009) prepared by the BAAQMD. The BAAQMD Options and Justification Report establishes thresholds based on substantial evidence and are consistent with the thresholds outlined in their CEQA Air Quality Guidelines.

4.0 SIGNIFICANCE CRITERIA AND METHODOLOGY

4.1 SIGNIFICANCE CRITERIA

HEALTH RISK ANALYSIS THRESHOLDS

In order to determine whether or not a proposed project would cause a significant effect on the environment, the impact of the project must be determined by examining the types and levels of air toxics generated and the associated impacts on factors that affect air quality. Currently, the *Air Toxics Hot Spots Program Risk Assessment Guidance Manual for Preparation of Health Risk Assessments* (Guidance Manual), published by the California Environmental Protection Agency (Cal-EPA) and OEHHA, February 2015, is utilized for preparing health risk assessments. With guidance from Cal-EPA and OEHHA, the BAAQMD recommends that the following air pollution thresholds be used by lead agencies in determining whether the proposed project is significant. If the lead agency finds that the proposed project has the potential to exceed the air pollution thresholds, the project should be considered significant. The thresholds for air toxic emissions are outlined in Table 2, *Bay Area Air Quality Management District Air Quality Significance Thresholds*.

Table 2
Bay Area Air Quality Management District Air Quality Significance Thresholds

Pollutant	Operational-Related Threshold
Risk and Hazards for New Sources and Receptors (Individual Project)	Compliance with Qualified Community Risk Reduction Plan OR Increased cancer risk of > 10.0 in 1 million Increased non-cancer risk of > 1.0 Hazard Index (Chronic or Acute) Ambient $PM_{2.5}$ increase: > 0.3 µg/m^3 annual average Zone of Influence: 1,000-foot radius from property line of source or receptor
Source: Bay Area Air Quality Management District, *Revised Draft Options and Justification Report*, October 2009, and Bay Area Air Quality Management District, *CEQA Air Quality Guidelines*, updated 2011.	

The 10 in 1 million threshold shown in Table 2 is based on the latest scientific data, and is designed to protect the most sensitive individuals in the population as each chemical's exposure level includes large margins of safety. In addition to this carcinogen threshold, OEHHA recommends that the non-carcinogenic hazards for TACs at ground level should not exceed a chronic hazard index of greater than one.

Exhaust emissions of diesel particulates from the heavy trucks operating at the project site are below the 10 and 2.5 micron range (PM_{10} and $PM_{2.5}$, respectively). DPM is the only pollutant needed for the cancer risk analysis (which uses 70-year-average emission rates for residential sensitive receptor risks) since the cancer slope factor established by OEHHA for the assessment of DPM cancer risk includes consideration of the individual toxic species that could be adsorbed onto DPM particles.

4.2 METHODOLOGY

HEALTH RISK ASSESSMENT

The air dispersion modeling for the HRA was performed using the U.S. EPA AERMOD dispersion model, version 15181. AERMOD is a steady-state, multiple-source, Gaussian dispersion model designed for use with emission sources situated in terrain where ground elevations can exceed the stack heights of the emission sources (not a factor in this case). AERMOD requires hourly meteorological data consisting of wind vector, wind speed, temperature, stability class, and mixing height. Surface and upper air meteorological data from the Moffett Federal Airfield (approximately 2.75 miles to the north of the project site) was selected as being the nearest, most representative meteorology.

Emissions sources in the model included one area source for the loading dock area, and a line source (comprised of six volume sources) representing the TRU truck delivery route at the project site. The maximum daily exhaust emissions for all on-site diesel equipment was used to produce an emission rate in terms of grams per second per square meter. Emissions from heavy trucks at the project site were assigned a release height of three meters.

The model was run to obtain the peak 24-hour and annual average concentration in micrograms per cubic meter [$\mu g/m^3$] at nearby sensitive receptors. Receptors used included the nearby sensitive receptors shown in Exhibit 4 with 100 meter (328 feet) spacing. Note that the concentration estimate developed using this methodology is considered conservative, and is not a specific prediction of the actual concentrations that would occur at the project site any one point in time. Actual 24-hour and annual average and concentrations are dependent on many variables, particularly the number and type of equipment working at specific distances during time periods of adverse meteorology. A maximum of four heavy trucks with TRUs would make deliveries to the project site daily (or up to 20 deliveries per week). TRUs are refrigeration systems powered by integral diesel internal combustion engines designed to control the environment of temperature-sensitive products that are transported in trucks, trailers, shipping containers, and railcars. In 2004, the TRU Airborne Toxic Control Measure (TRU Regulation) 1 was adopted by CARB to reduce diesel particulate matter emissions from TRUs and TRU gen set engines. Amendments were adopted by the Board in November 2010 and October 2011.[4] The heavy trucks operating at the project site would be located approximately 115 feet from the nearest sensitive receptors (multi-family residential uses to the south) for a limited period of time.

A health risk computation was performed to determine the risk of developing an excess cancer risk calculated on a 70-year lifetime basis, 30-year, and 9-year exposure scenarios. The chronic and carcinogenic health risk calculations are based on the standardized equations contained in the U.S. EPA Human Health Evaluation Manual (1991) and the OEHHA Guidance Manual. Only the risk associated with operations of the proposed Oppidan Online Ordering Grocery Store was assessed as construction emissions would be negligible.

[4] California Air Resources Board, *Q&A – TRU Gensets*, July 2013.

RISK AND HAZARD ASSESSMENT

Cancer Risk

Based on the OEHHA methodology, the residential inhalation cancer risk from the annual average DPM concentrations is calculated by multiplying the daily inhalation or oral dose, by a cancer potency factor, the age sensitivity factor (ASF), the frequency of time spent at home (for residents only), and the exposure duration divided by averaging time, to yield the excess cancer risk. These factors are discussed in more detail below. It is important to note that exposure duration is based on approximately 350 days of heavy truck operation at the project site. Cancer risk must be separately calculated for specified age groups, because of age differences in sensitivity to carcinogens and age differences in intake rates (per kg body weight). Separate risk estimates for these age groups provide a health-protective estimate of cancer risk by accounting for greater susceptibility in early life, including both age-related sensitivity and amount of exposure.

Exposure through inhalation (Dose-air) is a function of the function of the breathing rate, the exposure frequency, and the concentration of a substance in the air. For residential exposure, the breathing rates are determined for specific age groups, so Dose-air is calculated for each of these age groups, 3rd trimester, 0<2, 2<9, 2<16, 16<30 and 16-70 years. To estimate cancer risk, the dose was estimated by applying the following formula to each ground-level concentration:

$$\text{Dose-air} = (C_{air} * \{BR/BW\} * A * EF * 10^{-6}$$

Where:

Dose-air	=	dose through inhalation (mg/kg/day)
C_{air}	=	air concentration ($\mu g/m^3$) from air dispersion model
{BR/BW}	=	daily breathing rate normalized to body weight (L/kg body weight – day) (225 L\kg BW-day for 3rd Trimester, 658 L/kg BW-day for 0<2 years, 535 L/kg BW-day for 2<9 years, 452 L/kg BW-day for 2<16 years, 210 L/kg BW-day for 16<30 years, and 185 L/kg BW-day 16<70 years)
A	=	Inhalation absorption factor (unitless [1])
EF	=	exposure frequency (unitless), days/365 days (0.96 [approximately 350 days per year])
10^{-6}	=	conversion factor (micrograms to milligrams, liters to cubic meters)

OEHHA developed ASFs to take into account the increased sensitivity to carcinogens during early-in-life exposure. In the absence of chemical-specific data, OEHHA recommends a default ASF of 10 for the third trimester to age 2 years, an ASF of 3 for ages 2 through 15 years to account for potential increased sensitivity to carcinogens during childhood and an ASF of 1 for ages 16 through 70 years.

Fraction of time at home (FAH) during the day is used to adjust exposure duration and cancer risk from a specific facility's emissions, based on the assumption that exposure to the facility's emissions are not occurring away from home. OEHHA recommends the following FAH values: from the third trimester to age <2 years, 85 percent of time is spent at home; from age 2 through <16 years, 72 percent of time is spent at home; from age 16 years and greater, 73 percent of time is spent at home.

To estimate the cancer risk, the dose is multiplied by the cancer potency factor, the ASF, the exposure duration divided by averaging time, and the frequency of time spent at home (for residents only):

$$Risk_{inh\text{-}res} = (Dose_{air} * CPH * ASF * ED/AT * FAH)$$

Where:

$Risk_{inh\text{-}res}$	=	residential inhalation cancer risk (potential chances per million)
$Dose_{air}$	=	daily dose through inhalation (mg/kg-day)
CPF	=	inhalation cancer potency factor (mg/kg-day^{-1})
ASF	=	age sensitivity factor for a specified age group (unitless)
ED	=	exposure duration (in years) for a specified age group (0.25 years for 3rd trimester, 2 years for 0<2, 7 years for 2<9, 14 years for 2<16, 14 years for 16<30, 54 years for 16-70)
AT	=	averaging time of lifetime cancer risk (years)
FAH	=	fraction of time spent at home (unitless)

Chronic Non-Cancer Hazard

Non-cancer chronic impacts are calculated by dividing the annual average concentration by the Reference Exposure Level (REL) for that substance. The REL is defined as the concentration at which no adverse non-cancer health effects are anticipated. The following equation was used to determine the non-cancer risk:

$$\text{Hazard Quotient} = Ci/RELi$$

Where:

Ci	=	Concentration in the air of substance i (annual average concentration in $\mu g/m^3$)
RELi	=	Chronic noncancer Reference Exposure Level for substance i ($\mu g/m^3$)

Acute Non-Cancer Hazard

The potential for acute non-cancer hazards is evaluated by comparing the maximum short-term exposure level to an acute REL. RELs are designed to protect sensitive individuals within the population. The calculation of acute non-cancer impacts is similar to the procedure for chronic non-cancer impacts. The equation is as follows:

$$\text{Acute HQ} = \text{Maximum Hourly Air Concentration } (\mu g/m^3) \,/\, \text{Acute REL } (\mu g/m^3)$$

5.0 POTENTIAL HEALTH RISK IMPACTS

5.1 LONG-TERM IMPACTS

CARB identified DPM as a TAC in 1998. Mobile sources (including trucks, buses, automobiles, trains, ships, and farm equipment) are by far the largest source of diesel emissions. The exhaust from diesel engines includes hundreds of different gaseous and particulate components, many of which are toxic. Diesel exhaust is composed of two phases, either gas or particulate – both contribute to the risk. The gas phase is composed of many of the urban HAPs, such as acetaldehyde, acrolein, benzene, 1,3-butadiene, formaldehyde, and polycyclic aromatic hydrocarbons. The particulate phase has many different types that can be classified by size or composition. The sizes of diesel particulates of greatest health concern are fine and ultrafine particles. These particles may be composed of elemental carbon with adsorbed[5] compounds such as organics, sulfates, nitrates, metals, and other trace elements. Diesel exhaust is emitted from a broad range of on- and off-road diesel engines. As the project would require approximately 20 heavy TRU truck deliveries per week during operations, an analysis was performed using the EPA-approved AERMOD model.

CARCINOGENIC RISK

Vehicle DPM emissions were estimated using emission factors for particulate matter less than 2.5 microns in diameter ($PM_{2.5}$) generated with the 2014 version of the Emission FACtor model (EMFAC) developed by the ARB. EMFAC 2014 is a mathematical model that was developed to calculate emission rates from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by the ARB to project changes in future emissions from on-road mobile sources. The most recent version of this model, EMFAC 2014, incorporates regional motor vehicle data, information and estimates regarding the distribution of vehicle miles traveled (VMT) by speed, and number of starts per day.

The most important improvement in EMFAC 2014 is the integration of the new data and methods to estimate emissions from diesel trucks and buses. The model includes the emissions benefits of the truck and bus rule and the previously adopted rules for other on-road diesel equipment. Finally, the impacts of the recession on emissions that were quantified as part of the truck and bus rulemaking are included.

For this project, annual average $PM_{2.5}$ emission factors were generated by running EMFAC 2014 in EMFAC Mode for vehicles in the BAAQMD district within Santa Clara County. The EMFAC Mode generates emission factors in terms of grams of pollutant emitted per vehicle activity and can calculate a matrix of emission factors at specific values of vehicle speed, temperature, and relative humidity. The model was run for speeds traveled on and within the vicinity of the project site. The vehicle travel speeds for each segment modeled are summarized below.

[5] This term is specifically used for gases.

- Idling – on-site loading/unloading, and TRU emissions;
- 5 miles per hour – on-site vehicle movement including driving and maneuvering; and
- 25 miles per hour – off-site vehicle movement including driving and maneuvering.

The average $PM_{2.5}$ emission factors for heavy trucks with TRUs were calculated based on the annual average emission factors for various exposure periods associated with assumptions for evaluating exposure over three different periods (i.e., 70-, 30-, and 9-year exposure scenarios).

Based on the AERMOD results, the expected annual average diesel $PM_{2.5}$ emission concentrations from operation of the project (four daily heavy truck deliveries with TRUs) would be 0.0015 $\mu g/m^3$, which is below the BAAQMD threshold of 0.3 $\mu g/m^3$. The calculated carcinogenic risk associated with the project is depicted in Table 3, *Operational Health Risk*. The calculations conservatively assume no fleet turnover or cleaner technology with lower emissions, and assume that residents will live in the same home (and thus be exposed to emissions) for the entire exposure period. As depicted in Table 3, the highest concentration would result in a risk of 1.19 in one million over the 70-year exposure period, which would not exceed the threshold of 10 in one million. The calculated risk is also below the threshold for the 30- and 9-year exposure periods. Therefore, impacts related to cancer risk and $PM_{2.5}$ concentrations from heavy trucks with TRUs at the project site would be less than significant.

Table 3
Operational Health Risk

Exposure Scenario	Maximum Cancer Risk (Risk per Million)[1,2]	Significance Threshold (Risk per Million)	Exceeds BAAQMD Significance Threshold?
70-Year Exposure	1.19	10	No
30-Year Exposure	1.01	10	No
9-Year Exposure	0.72	10	No

Notes:
1. Calculations were made using AERMOD version 15181.
2. Refer to Appendix A, *Modeling Data*.

NON-CARCINOGENIC HAZARDS

The significance thresholds for TAC exposure also require an evaluation of non-cancer risk stated in terms of a hazard index. An acute or chronic hazard index of 1.0 is considered individually significant. The hazard index is calculated by dividing the acute or chronic exposure by the reference exposure level. The chronic and acute hazard index associated with the emissions from the project would be 2.8×10^{-4} and 7.8×10^{-3}, respectively. Therefore, non-carcinogenic hazards are calculated to be within acceptable limits and a less than significant impact would occur.

CONCLUSION

The AERMOD analysis conducted for operations of the Oppidan Online Ordering Grocery Store project determined emissions concentrations and the associated risk at nearby receptors (existing residences adjacent to the project site). Based upon the results of the analysis, the annual average $PM_{2.5}$ concentration would be below BAAQMD thresholds and the calculated risk would be 1.19 in one million during the longest exposure period of 70 years, which is below the Cancer Risk Threshold of 10 in one million. Additionally, operational emissions would not exceed the Chronic and Acute Hazard Index Threshold of 1.0. Therefore, the Oppidan Online Ordering Grocery Store project would not result in health risk related impacts.

6.0 REFERENCES

6.1 LIST OF PREPARERS

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Achilles Malisos, Manager of Air and Noise Studies
Ryan Chiene, Environmental Analyst
Linda Bo, Graphic Artist

6.2 DOCUMENTS

1. Bay Area Air Quality Management District, *CEQA Air Quality Guidelines*, updated May 2011 and May 2012. http://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines, accessed October 29, 2015.

2. Bay Area Air Quality Management District, *Revised Draft Options and Justification Report,* October 2009.

3. California Air Pollution Control Officers Association, *Health Risk Assessment for Proposed Land Use Projects*, July 2009.

4. California Air Resources Board, *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*, October 2000.

5. California Office of Environmental Health Hazard Assessment, *Air Toxics Hot Spots Program Risk Assessment Guidelines*, August 2003.

6. California Environmental Protection Agency and Office of Environmental Health Hazard Assessment, *Air Toxics Hot Spots Program Risk Assessment Guidance Manual for Preparation of Health Risk Assessments*, February 2015.

7. D. Bruce Turner, CCM and Richard H. Schulze, P.E., QEP, *Practical Guide to Atmospheric Dispersion Modeling*, 2007.

8. Google Earth, 2015.

9. U.S. Environmental Protection Agency, *Exposure Factors Handbook: 2011 Edition,* September 2011.

6.3 WEB SITES/PROGRAMS

U.S. Environmental Protection Agency, AERMOD Dispersion Model Version 15181.

Lakes Environmental, Gaussian Plume Air Dispersion Model, Version 9.0.

APPENDIX A
Modeling Data

Oppidan Online Ordering Grocery Store

Emissions Calculations

On-Site Truck Movement			Avg Speed (mph)	Emission Factor (g/mi)	Daily Truck Trips (round trips)	lentgh (mi)	g/day	g/sec
Trucks			15	0.046454	8	0.16	5.95E-02	6.88E-07

TRU Emissions	TRU Size (hp)	Daily Trucks with TRU	Emissions Factor (g/bhp-hr)	Load Factor	On/Off Cycle Factor	Cooling Time (hr/day)	g/day	g/sec
TRU	34	4	0.02	0.53	0.5	0.01	7.21E-03	8.34E-08

On-Site Vehicle Idle Emissions		Emission Factor (g/veh/day)	Idling Time (min)	Idling Time (hrs/day)	Daily Trucks	Release Height Above Ground (m)	g/day	g/sec
Idle		0.009345139	15	1.04E-02	4	3	3.89E-04	4.51E-09

Total *8.79E-08* (TRU + Idle)

Sources:

CARB, EMFAC2014.

CARB, D*iesel Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles* , October 2000.

CARB, *Staff Report: Initial Statement of Reasons for Proposed Rulemaking, 2011 Amendments for the Airborne Toxic Control Measure for In-Use Diesel-Fueled Transportation Refrigeration Units (TRU) and TRU Generator Sets, and Facilities Where TRUs Operate* , August 2011.

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** Lakes Environmental Software Inc.
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DISCCART	585387.42	4136162.15
DISCCART	585409.42	4136162.15
DISCCART	585431.42	4136162.15
DISCCART	585453.42	4136162.15
DISCCART	585475.42	4136162.15
DISCCART	585497.42	4136162.15
DISCCART	585519.42	4136162.15
DISCCART	585079.42	4136175.62
DISCCART	585101.42	4136175.62
DISCCART	585123.42	4136175.62
DISCCART	585145.42	4136175.62
DISCCART	585167.42	4136175.62
DISCCART	585189.42	4136175.62
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DISCCART	585233.42	4136175.62
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DISCCART	585277.42	4136175.62
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DISCCART	585321.42	4136175.62
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DISCCART	585365.42	4136175.62
DISCCART	585387.42	4136175.62
DISCCART	585409.42	4136175.62
DISCCART	585431.42	4136175.62
DISCCART	585453.42	4136175.62

DISCCART	585475.42	4136175.62
DISCCART	585497.42	4136175.62
DISCCART	585519.42	4136175.62
DISCCART	585079.42	4136189.09
DISCCART	585101.42	4136189.09
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DISCCART	585387.42	4136189.09
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DISCCART	585453.42	4136189.09
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DISCCART	585387.42	4136202.56
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DISCCART	585475.42	4136202.56
DISCCART	585497.42	4136202.56
DISCCART	585519.42	4136202.56
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DISCCART	585167.42	4136216.03
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DISCCART	585475.42	4136216.03
DISCCART	585497.42	4136216.03
DISCCART	585519.42	4136216.03

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   DISCCART    585453.42   4136229.50
   DISCCART    585475.42   4136229.50
   DISCCART    585497.42   4136229.50
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   DISCCART    585101.42   4136242.97
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   DISCCART    585453.42   4136242.97
   DISCCART    585475.42   4136242.97
   DISCCART    585497.42   4136242.97
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   DISCCART    585079.42   4136256.44
   DISCCART    585101.42   4136256.44
   DISCCART    585123.42   4136256.44
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   DISCCART    585453.42   4136256.44
   DISCCART    585475.42   4136256.44
   DISCCART    585497.42   4136256.44
   DISCCART    585519.42   4136256.44
** DESCRREC "UCART2" "Receptors generated from Uniform Cartesian Grid"
   DISCCART    585255.45   4135570.88
   DISCCART    585276.10   4135570.88
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DISCCART	585296.75	4135570.88
DISCCART	585317.40	4135570.88
DISCCART	585338.05	4135570.88
DISCCART	585358.70	4135570.88
DISCCART	585379.35	4135570.88
DISCCART	585400.00	4135570.88
DISCCART	585420.65	4135570.88
DISCCART	585441.30	4135570.88
DISCCART	585461.95	4135570.88
DISCCART	585482.60	4135570.88
DISCCART	585503.25	4135570.88
DISCCART	585523.90	4135570.88
DISCCART	585544.55	4135570.88
DISCCART	585565.20	4135570.88
DISCCART	585585.85	4135570.88
DISCCART	585606.50	4135570.88
DISCCART	585627.15	4135570.88
DISCCART	585647.80	4135570.88
DISCCART	585668.45	4135570.88
DISCCART	585255.45	4135584.63
DISCCART	585276.10	4135584.63
DISCCART	585296.75	4135584.63
DISCCART	585317.40	4135584.63
DISCCART	585338.05	4135584.63
DISCCART	585358.70	4135584.63
DISCCART	585379.35	4135584.63
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DISCCART	585585.85	4135584.63
DISCCART	585606.50	4135584.63
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DISCCART	585276.10	4135598.38
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DISCCART	585358.70	4135598.38
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DISCCART	585276.10	4135612.13
DISCCART	585296.75	4135612.13
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DISCCART	585338.05	4135612.13

DISCCART	585358.70	4135612.13
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DISCCART	585482.60	4135790.88
DISCCART	585503.25	4135790.88
DISCCART	585523.90	4135790.88
DISCCART	585544.55	4135790.88
DISCCART	585565.20	4135790.88
DISCCART	585585.85	4135790.88
DISCCART	585606.50	4135790.88
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DISCCART	585338.05	4135804.63
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DISCCART	585379.35	4135804.63
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   DISCCART    585627.15   4135845.88
   DISCCART    585647.80   4135845.88
   DISCCART    585668.45   4135845.88
RE FINISHED
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** AERMOD Meteorology Pathway
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   PROFFILE "..\Met Data\745090.PFL"
   SURFDATA 23244 2009
   UAIRDATA 23230 2009 OAKLAND/WSO_AP
   PROFBASE 11.9 METERS
ME FINISHED
**
**********************************
** AERMOD Output Pathway
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**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
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   RECTABLE 24 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST Oppidan.AD\01H1GALL.PLT 31
   PLOTFILE 24 ALL 1ST Oppidan.AD\24H1GALL.PLT 32
   SUMMFILE Oppidan.sum
OU FINISHED
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** Project Parameters
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** PROJCTN  CoordinateSystemUTM
** DESCPTN  UTM: Universal Transverse Mercator
** DATUM    World Geodetic System 1984
** DTMRGN   Global Definition
** UNITS    m
** ZONE     10
** ZONEINX  0
**
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** AERMOD Input Produced by:
** AERMOD View Ver. 9.0.0
** Lakes Environmental Software Inc.
** Date: 11/16/2015
** File: H:\pdata\149354\Environmental\Technical Studies\HRA\AERMOD\Oppidan\Oppidan.ADI
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** AERMOD Control Pathway
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CO STARTING
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   AVERTIME 1 24
   URBANOPT 150000
   POLLUTID PM_2.5
   RUNORNOT RUN
   ERRORFIL Oppidan.err
CO FINISHED
**
**********************************************
** AERMOD Source Pathway
**********************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** ------------------------------------------------------------------
** Line Source Represented by Separated Volume Sources (2W)
** LINE VOLUME Source ID = SLINE1
** DESCRSRC truck
** PREFIX
** Length of Side = 22.15
** Configuration = Separated 2W
** Emission Rate = 6.88E-07
** Vertical Dimension = 5.10
** SZINIT = 2.37
** Nodes = 7
** 585633.851, 4135936.728, 0.00, 2.55, 20.61
** 585645.395, 4135939.688, 0.00, 2.55, 20.61
** 585686.241, 4135939.688, 0.00, 2.55, 20.61
** 585688.313, 4135791.396, 0.00, 2.55, 20.61
** 585688.289, 4135766.003, 0.00, 2.55, 20.61
** 585675.589, 4135750.026, 0.00, 2.55, 20.61
** 585661.660, 4135742.242, 0.00, 2.55, 20.61
** ------------------------------------------------------------------
   LOCATION L0000001     VOLUME   585644.581 4135939.479 0.0
   LOCATION L0000002     VOLUME   585686.278 4135937.066 0.0
   LOCATION L0000003     VOLUME   585686.897 4135892.762 0.0
   LOCATION L0000004     VOLUME   585687.516 4135848.457 0.0
   LOCATION L0000005     VOLUME   585688.135 4135804.153 0.0
   LOCATION L0000006     VOLUME   585684.457 4135761.182 0.0
** End of LINE VOLUME Source ID = SLINE1
   LOCATION AREA1        AREA       585621.780  4135928.740          0.0
** DESCRSRC Idle Area w/TRU
** Source Parameters **
** LINE VOLUME Source ID = SLINE1
   SRCPARAM L0000001     0.0000001147      2.55     20.61      2.37
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   SRCPARAM L0000002     0.0000001147      2.55     20.61      2.37
   SRCPARAM L0000003     0.0000001147      2.55     20.61      2.37
   SRCPARAM L0000004     0.0000001147      2.55     20.61      2.37
   SRCPARAM L0000005     0.0000001147      2.55     20.61      2.37
   SRCPARAM L0000006     0.0000001147      2.55     20.61      2.37
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   SRCPARAM AREA1         8.79E-08     3.000    22.200    14.050     0.000     3.010
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
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** AERMOD Receptor Pathway
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**
RE STARTING
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   DISCCART    585101.42   4135987.04
   DISCCART    585123.42   4135987.04
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   DISCCART    585167.42   4135987.04
   DISCCART    585189.42   4135987.04
   DISCCART    585211.42   4135987.04
   DISCCART    585233.42   4135987.04
   DISCCART    585255.42   4135987.04
   DISCCART    585277.42   4135987.04
   DISCCART    585299.42   4135987.04
   DISCCART    585321.42   4135987.04
   DISCCART    585343.42   4135987.04
   DISCCART    585365.42   4135987.04
   DISCCART    585387.42   4135987.04
   DISCCART    585409.42   4135987.04
   DISCCART    585431.42   4135987.04
   DISCCART    585453.42   4135987.04
   DISCCART    585475.42   4135987.04
   DISCCART    585497.42   4135987.04
   DISCCART    585519.42   4135987.04
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   DISCCART    585145.42   4136000.51
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   DISCCART    585101.42   4136013.98
   DISCCART    585123.42   4136013.98
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   DISCCART    585189.42   4136013.98
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DISCCART	585453.42	4136175.62

DISCCART	585475.42	4136175.62
DISCCART	585497.42	4136175.62
DISCCART	585519.42	4136175.62
DISCCART	585079.42	4136189.09
DISCCART	585101.42	4136189.09
DISCCART	585123.42	4136189.09
DISCCART	585145.42	4136189.09
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DISCCART	585211.42	4136189.09
DISCCART	585233.42	4136189.09
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DISCCART	585299.42	4136189.09
DISCCART	585321.42	4136189.09
DISCCART	585343.42	4136189.09
DISCCART	585365.42	4136189.09
DISCCART	585387.42	4136189.09
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DISCCART	585453.42	4136189.09
DISCCART	585475.42	4136189.09
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DISCCART	585145.42	4136202.56
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DISCCART	585475.42	4136202.56
DISCCART	585497.42	4136202.56
DISCCART	585519.42	4136202.56
DISCCART	585079.42	4136216.03
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DISCCART	585167.42	4136216.03
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DISCCART	585475.42	4136216.03
DISCCART	585497.42	4136216.03
DISCCART	585519.42	4136216.03

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   DISCCART    585101.42   4136256.44
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   DISCCART    585453.42   4136256.44
   DISCCART    585475.42   4136256.44
   DISCCART    585497.42   4136256.44
   DISCCART    585519.42   4136256.44
** DESCRREC "UCART2" "Receptors generated from Uniform Cartesian Grid"
   DISCCART    585255.45   4135570.88
   DISCCART    585276.10   4135570.88
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DISCCART	585296.75	4135570.88
DISCCART	585317.40	4135570.88
DISCCART	585338.05	4135570.88
DISCCART	585358.70	4135570.88
DISCCART	585379.35	4135570.88
DISCCART	585400.00	4135570.88
DISCCART	585420.65	4135570.88
DISCCART	585441.30	4135570.88
DISCCART	585461.95	4135570.88
DISCCART	585482.60	4135570.88
DISCCART	585503.25	4135570.88
DISCCART	585523.90	4135570.88
DISCCART	585544.55	4135570.88
DISCCART	585565.20	4135570.88
DISCCART	585585.85	4135570.88
DISCCART	585606.50	4135570.88
DISCCART	585627.15	4135570.88
DISCCART	585647.80	4135570.88
DISCCART	585668.45	4135570.88
DISCCART	585255.45	4135584.63
DISCCART	585276.10	4135584.63
DISCCART	585296.75	4135584.63
DISCCART	585317.40	4135584.63
DISCCART	585338.05	4135584.63
DISCCART	585358.70	4135584.63
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DISCCART	585276.10	4135612.13
DISCCART	585296.75	4135612.13
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DISCCART	585338.05	4135612.13

DISCCART	585358.70	4135612.13
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DISCCART	585461.95	4135804.63
DISCCART	585482.60	4135804.63
DISCCART	585503.25	4135804.63
DISCCART	585523.90	4135804.63
DISCCART	585544.55	4135804.63
DISCCART	585565.20	4135804.63
DISCCART	585585.85	4135804.63
DISCCART	585606.50	4135804.63
DISCCART	585627.15	4135804.63
DISCCART	585647.80	4135804.63
DISCCART	585668.45	4135804.63
DISCCART	585255.45	4135818.38
DISCCART	585276.10	4135818.38
DISCCART	585296.75	4135818.38
DISCCART	585317.40	4135818.38
DISCCART	585338.05	4135818.38
DISCCART	585358.70	4135818.38
DISCCART	585379.35	4135818.38
DISCCART	585400.00	4135818.38
DISCCART	585420.65	4135818.38
DISCCART	585441.30	4135818.38
DISCCART	585461.95	4135818.38
DISCCART	585482.60	4135818.38
DISCCART	585503.25	4135818.38
DISCCART	585523.90	4135818.38
DISCCART	585544.55	4135818.38
DISCCART	585565.20	4135818.38
DISCCART	585585.85	4135818.38
DISCCART	585606.50	4135818.38
DISCCART	585627.15	4135818.38
DISCCART	585647.80	4135818.38

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   DISCCART    585668.45   4135818.38
   DISCCART    585255.45   4135832.13
   DISCCART    585276.10   4135832.13
   DISCCART    585296.75   4135832.13
   DISCCART    585317.40   4135832.13
   DISCCART    585338.05   4135832.13
   DISCCART    585358.70   4135832.13
   DISCCART    585379.35   4135832.13
   DISCCART    585400.00   4135832.13
   DISCCART    585420.65   4135832.13
   DISCCART    585441.30   4135832.13
   DISCCART    585461.95   4135832.13
   DISCCART    585482.60   4135832.13
   DISCCART    585503.25   4135832.13
   DISCCART    585523.90   4135832.13
   DISCCART    585544.55   4135832.13
   DISCCART    585565.20   4135832.13
   DISCCART    585585.85   4135832.13
   DISCCART    585606.50   4135832.13
   DISCCART    585627.15   4135832.13
   DISCCART    585647.80   4135832.13
   DISCCART    585668.45   4135832.13
   DISCCART    585255.45   4135845.88
   DISCCART    585276.10   4135845.88
   DISCCART    585296.75   4135845.88
   DISCCART    585317.40   4135845.88
   DISCCART    585338.05   4135845.88
   DISCCART    585358.70   4135845.88
   DISCCART    585379.35   4135845.88
   DISCCART    585400.00   4135845.88
   DISCCART    585420.65   4135845.88
   DISCCART    585441.30   4135845.88
   DISCCART    585461.95   4135845.88
   DISCCART    585482.60   4135845.88
   DISCCART    585503.25   4135845.88
   DISCCART    585523.90   4135845.88
   DISCCART    585544.55   4135845.88
   DISCCART    585565.20   4135845.88
   DISCCART    585585.85   4135845.88
   DISCCART    585606.50   4135845.88
   DISCCART    585627.15   4135845.88
   DISCCART    585647.80   4135845.88
   DISCCART    585668.45   4135845.88
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE "..\Met Data\745090.SFC"
   PROFFILE "..\Met Data\745090.PFL"
   SURFDATA 23244 2009
   UAIRDATA 23230 2009 OAKLAND/WSO_AP
   PROFBASE 11.9 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
```

```
   RECTABLE 24 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST Oppidan.AD\01H1GALL.PLT 31
   PLOTFILE 24 ALL 1ST Oppidan.AD\24H1GALL.PLT 32
   SUMMFILE Oppidan.sum
OU FINISHED

 ************************************
 *** SETUP Finishes Successfully ***
 ************************************

□*** AERMOD - VERSION  15181 ***   *** H:\pdata\149354\Environmental\Technical Studies\HRA\AERMOD\Oppidan\O ***        11/16/15
 *** AERMET - VERSION  14134 ***   ***                                                                  ***        16:32:45
                                                                                                                  PAGE   1
 **MODELOPTs:   NonDFAULT CONC      FLAT      URBAN

                                          ***     MODEL SETUP OPTIONS SUMMARY       ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for     7 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =    150000.0 ;  Urban Roughness Length =  1.000 m

 **Model Allows User-Specified Options:
        1. Stack-tip Downwash.
        2. Model Assumes Receptors on FLAT Terrain.
        3. Use Calms Processing Routine.
        4. Use Missing Data Processing Routine.
        5. No Exponential Decay.
        6. Urban Roughness Length of 1.0 Meter Used.

 **Other Options Specified:
        CCVR_Sub - Meteorological data includes CCVR substitutions
        TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  PM_2.5

 **Model Calculates  2 Short Term Average(s) of:   1-HR  24-HR

 **This Run Includes:      7 Source(s);       1 Source Group(s); and     882 Receptor(s)

               with:       0 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                and:       6 VOLUME source(s)
                and:       1 AREA type source(s)
                and:       0 LINE source(s)
                and:       0 OPENPIT source(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  14134

 **Output Options Selected:
         Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
         Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
```

Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

**Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 11.90 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

**Approximate Storage Requirements of Model = 3.6 MB of RAM.

**Detailed Error/Message File: Oppidan.err
**File for Summary of Results: Oppidan.sum

**MODELOPTs: NonDFAULT CONC FLAT URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000001	0	0.11470E-06	585644.6	4135939.5	11.9	2.55	20.61	2.37	YES	
L0000002	0	0.11470E-06	585686.3	4135937.1	11.9	2.55	20.61	2.37	YES	
L0000003	0	0.11470E-06	585686.9	4135892.8	11.9	2.55	20.61	2.37	YES	
L0000004	0	0.11470E-06	585687.5	4135848.5	11.9	2.55	20.61	2.37	YES	
L0000005	0	0.11470E-06	585688.1	4135804.2	11.9	2.55	20.61	2.37	YES	
L0000006	0	0.11470E-06	585684.5	4135761.2	11.9	2.55	20.61	2.37	YES	

**MODELOPTs: NonDFAULT CONC FLAT URBAN

*** AREA SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	COORD (SW CORNER) X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	X-DIM OF AREA (METERS)	Y-DIM OF AREA (METERS)	ORIENT. OF AREA (DEG.)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
AREA1	0	0.87900E-07	585621.8	4135928.7	11.9	3.00	22.20	14.05	0.00	3.01	YES	

**MODELOPTs: NonDFAULT CONC FLAT URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
ALL	L0000001 , L0000002 , L0000003 , L0000004 , L0000005 , L0000006 , AREA1 ,

**MODELOPTs: NonDFAULT CONC FLAT URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs
	150000.	L0000001 , L0000002 , L0000003 , L0000004 , L0000005 , L0000006 , AREA1 ,

**MODELOPTs: NonDFAULT CONC FLAT URBAN

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(585079.4,	4135987.0,	11.9,	11.9,	0.0);	(585101.4,	4135987.0,	11.9,	11.9,	0.0);
(585123.4,	4135987.0,	11.9,	11.9,	0.0);	(585145.4,	4135987.0,	11.9,	11.9,	0.0);
(585167.4,	4135987.0,	11.9,	11.9,	0.0);	(585189.4,	4135987.0,	11.9,	11.9,	0.0);
(585211.4,	4135987.0,	11.9,	11.9,	0.0);	(585233.4,	4135987.0,	11.9,	11.9,	0.0);
(585255.4,	4135987.0,	11.9,	11.9,	0.0);	(585277.4,	4135987.0,	11.9,	11.9,	0.0);
(585299.4,	4135987.0,	11.9,	11.9,	0.0);	(585321.4,	4135987.0,	11.9,	11.9,	0.0);
(585343.4,	4135987.0,	11.9,	11.9,	0.0);	(585365.4,	4135987.0,	11.9,	11.9,	0.0);
(585387.4,	4135987.0,	11.9,	11.9,	0.0);	(585409.4,	4135987.0,	11.9,	11.9,	0.0);
(585431.4,	4135987.0,	11.9,	11.9,	0.0);	(585453.4,	4135987.0,	11.9,	11.9,	0.0);
(585475.4,	4135987.0,	11.9,	11.9,	0.0);	(585497.4,	4135987.0,	11.9,	11.9,	0.0);
(585519.4,	4135987.0,	11.9,	11.9,	0.0);	(585079.4,	4136000.5,	11.9,	11.9,	0.0);
(585101.4,	4136000.5,	11.9,	11.9,	0.0);	(585123.4,	4136000.5,	11.9,	11.9,	0.0);
(585145.4,	4136000.5,	11.9,	11.9,	0.0);	(585167.4,	4136000.5,	11.9,	11.9,	0.0);
(585189.4,	4136000.5,	11.9,	11.9,	0.0);	(585211.4,	4136000.5,	11.9,	11.9,	0.0);
(585233.4,	4136000.5,	11.9,	11.9,	0.0);	(585255.4,	4136000.5,	11.9,	11.9,	0.0);
(585277.4,	4136000.5,	11.9,	11.9,	0.0);	(585299.4,	4136000.5,	11.9,	11.9,	0.0);
(585321.4,	4136000.5,	11.9,	11.9,	0.0);	(585343.4,	4136000.5,	11.9,	11.9,	0.0);
(585365.4,	4136000.5,	11.9,	11.9,	0.0);	(585387.4,	4136000.5,	11.9,	11.9,	0.0);
(585409.4,	4136000.5,	11.9,	11.9,	0.0);	(585431.4,	4136000.5,	11.9,	11.9,	0.0);
(585453.4,	4136000.5,	11.9,	11.9,	0.0);	(585475.4,	4136000.5,	11.9,	11.9,	0.0);
(585497.4,	4136000.5,	11.9,	11.9,	0.0);	(585519.4,	4136000.5,	11.9,	11.9,	0.0);
(585079.4,	4136014.0,	11.9,	11.9,	0.0);	(585101.4,	4136014.0,	11.9,	11.9,	0.0);
(585123.4,	4136014.0,	11.9,	11.9,	0.0);	(585145.4,	4136014.0,	11.9,	11.9,	0.0);
(585167.4,	4136014.0,	11.9,	11.9,	0.0);	(585189.4,	4136014.0,	11.9,	11.9,	0.0);
(585211.4,	4136014.0,	11.9,	11.9,	0.0);	(585233.4,	4136014.0,	11.9,	11.9,	0.0);
(585255.4,	4136014.0,	11.9,	11.9,	0.0);	(585277.4,	4136014.0,	11.9,	11.9,	0.0);
(585299.4,	4136014.0,	11.9,	11.9,	0.0);	(585321.4,	4136014.0,	11.9,	11.9,	0.0);
(585343.4,	4136014.0,	11.9,	11.9,	0.0);	(585365.4,	4136014.0,	11.9,	11.9,	0.0);
(585387.4,	4136014.0,	11.9,	11.9,	0.0);	(585409.4,	4136014.0,	11.9,	11.9,	0.0);
(585431.4,	4136014.0,	11.9,	11.9,	0.0);	(585453.4,	4136014.0,	11.9,	11.9,	0.0);
(585475.4,	4136014.0,	11.9,	11.9,	0.0);	(585497.4,	4136014.0,	11.9,	11.9,	0.0);
(585519.4,	4136014.0,	11.9,	11.9,	0.0);	(585079.4,	4136027.4,	11.9,	11.9,	0.0);
(585101.4,	4136027.4,	11.9,	11.9,	0.0);	(585123.4,	4136027.4,	11.9,	11.9,	0.0);
(585145.4,	4136027.4,	11.9,	11.9,	0.0);	(585167.4,	4136027.4,	11.9,	11.9,	0.0);
(585189.4,	4136027.4,	11.9,	11.9,	0.0);	(585211.4,	4136027.4,	11.9,	11.9,	0.0);
(585233.4,	4136027.4,	11.9,	11.9,	0.0);	(585255.4,	4136027.4,	11.9,	11.9,	0.0);
(585277.4,	4136027.4,	11.9,	11.9,	0.0);	(585299.4,	4136027.4,	11.9,	11.9,	0.0);
(585321.4,	4136027.4,	11.9,	11.9,	0.0);	(585343.4,	4136027.4,	11.9,	11.9,	0.0);
(585365.4,	4136027.4,	11.9,	11.9,	0.0);	(585387.4,	4136027.4,	11.9,	11.9,	0.0);
(585409.4,	4136027.4,	11.9,	11.9,	0.0);	(585431.4,	4136027.4,	11.9,	11.9,	0.0);
(585453.4,	4136027.4,	11.9,	11.9,	0.0);	(585475.4,	4136027.4,	11.9,	11.9,	0.0);
(585497.4,	4136027.4,	11.9,	11.9,	0.0);	(585519.4,	4136027.4,	11.9,	11.9,	0.0);
(585079.4,	4136040.9,	11.9,	11.9,	0.0);	(585101.4,	4136040.9,	11.9,	11.9,	0.0);
(585123.4,	4136040.9,	11.9,	11.9,	0.0);	(585145.4,	4136040.9,	11.9,	11.9,	0.0);
(585167.4,	4136040.9,	11.9,	11.9,	0.0);	(585189.4,	4136040.9,	11.9,	11.9,	0.0);

**MODELOPTs: NonDFAULT CONC FLAT URBAN

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

```
( 585211.4, 4136040.9,      11.9,      11.9,       0.0);        ( 585233.4, 4136040.9,      11.9,      11.9,       0.0);
( 585255.4, 4136040.9,      11.9,      11.9,       0.0);        ( 585277.4, 4136040.9,      11.9,      11.9,       0.0);
( 585299.4, 4136040.9,      11.9,      11.9,       0.0);        ( 585321.4, 4136040.9,      11.9,      11.9,       0.0);
( 585343.4, 4136040.9,      11.9,      11.9,       0.0);        ( 585365.4, 4136040.9,      11.9,      11.9,       0.0);
( 585387.4, 4136040.9,      11.9,      11.9,       0.0);        ( 585409.4, 4136040.9,      11.9,      11.9,       0.0);
( 585431.4, 4136040.9,      11.9,      11.9,       0.0);        ( 585453.4, 4136040.9,      11.9,      11.9,       0.0);
( 585475.4, 4136040.9,      11.9,      11.9,       0.0);        ( 585497.4, 4136040.9,      11.9,      11.9,       0.0);
( 585519.4, 4136040.9,      11.9,      11.9,       0.0);        ( 585079.4, 4136054.4,      11.9,      11.9,       0.0);
( 585101.4, 4136054.4,      11.9,      11.9,       0.0);        ( 585123.4, 4136054.4,      11.9,      11.9,       0.0);
( 585145.4, 4136054.4,      11.9,      11.9,       0.0);        ( 585167.4, 4136054.4,      11.9,      11.9,       0.0);
( 585189.4, 4136054.4,      11.9,      11.9,       0.0);        ( 585211.4, 4136054.4,      11.9,      11.9,       0.0);
( 585233.4, 4136054.4,      11.9,      11.9,       0.0);        ( 585255.4, 4136054.4,      11.9,      11.9,       0.0);
( 585277.4, 4136054.4,      11.9,      11.9,       0.0);        ( 585299.4, 4136054.4,      11.9,      11.9,       0.0);
( 585321.4, 4136054.4,      11.9,      11.9,       0.0);        ( 585343.4, 4136054.4,      11.9,      11.9,       0.0);
( 585365.4, 4136054.4,      11.9,      11.9,       0.0);        ( 585387.4, 4136054.4,      11.9,      11.9,       0.0);
( 585409.4, 4136054.4,      11.9,      11.9,       0.0);        ( 585431.4, 4136054.4,      11.9,      11.9,       0.0);
( 585453.4, 4136054.4,      11.9,      11.9,       0.0);        ( 585475.4, 4136054.4,      11.9,      11.9,       0.0);
( 585497.4, 4136054.4,      11.9,      11.9,       0.0);        ( 585519.4, 4136054.4,      11.9,      11.9,       0.0);
( 585079.4, 4136067.9,      11.9,      11.9,       0.0);        ( 585101.4, 4136067.9,      11.9,      11.9,       0.0);
( 585123.4, 4136067.9,      11.9,      11.9,       0.0);        ( 585145.4, 4136067.9,      11.9,      11.9,       0.0);
( 585167.4, 4136067.9,      11.9,      11.9,       0.0);        ( 585189.4, 4136067.9,      11.9,      11.9,       0.0);
( 585211.4, 4136067.9,      11.9,      11.9,       0.0);        ( 585233.4, 4136067.9,      11.9,      11.9,       0.0);
( 585255.4, 4136067.9,      11.9,      11.9,       0.0);        ( 585277.4, 4136067.9,      11.9,      11.9,       0.0);
( 585299.4, 4136067.9,      11.9,      11.9,       0.0);        ( 585321.4, 4136067.9,      11.9,      11.9,       0.0);
( 585343.4, 4136067.9,      11.9,      11.9,       0.0);        ( 585365.4, 4136067.9,      11.9,      11.9,       0.0);
( 585387.4, 4136067.9,      11.9,      11.9,       0.0);        ( 585409.4, 4136067.9,      11.9,      11.9,       0.0);
( 585431.4, 4136067.9,      11.9,      11.9,       0.0);        ( 585453.4, 4136067.9,      11.9,      11.9,       0.0);
( 585475.4, 4136067.9,      11.9,      11.9,       0.0);        ( 585497.4, 4136067.9,      11.9,      11.9,       0.0);
( 585519.4, 4136067.9,      11.9,      11.9,       0.0);        ( 585079.4, 4136081.3,      11.9,      11.9,       0.0);
( 585101.4, 4136081.3,      11.9,      11.9,       0.0);        ( 585123.4, 4136081.3,      11.9,      11.9,       0.0);
( 585145.4, 4136081.3,      11.9,      11.9,       0.0);        ( 585167.4, 4136081.3,      11.9,      11.9,       0.0);
( 585189.4, 4136081.3,      11.9,      11.9,       0.0);        ( 585211.4, 4136081.3,      11.9,      11.9,       0.0);
( 585233.4, 4136081.3,      11.9,      11.9,       0.0);        ( 585255.4, 4136081.3,      11.9,      11.9,       0.0);
( 585277.4, 4136081.3,      11.9,      11.9,       0.0);        ( 585299.4, 4136081.3,      11.9,      11.9,       0.0);
( 585321.4, 4136081.3,      11.9,      11.9,       0.0);        ( 585343.4, 4136081.3,      11.9,      11.9,       0.0);
( 585365.4, 4136081.3,      11.9,      11.9,       0.0);        ( 585387.4, 4136081.3,      11.9,      11.9,       0.0);
( 585409.4, 4136081.3,      11.9,      11.9,       0.0);        ( 585431.4, 4136081.3,      11.9,      11.9,       0.0);
( 585453.4, 4136081.3,      11.9,      11.9,       0.0);        ( 585475.4, 4136081.3,      11.9,      11.9,       0.0);
( 585497.4, 4136081.3,      11.9,      11.9,       0.0);        ( 585519.4, 4136081.3,      11.9,      11.9,       0.0);
( 585079.4, 4136094.8,      11.9,      11.9,       0.0);        ( 585101.4, 4136094.8,      11.9,      11.9,       0.0);
( 585123.4, 4136094.8,      11.9,      11.9,       0.0);        ( 585145.4, 4136094.8,      11.9,      11.9,       0.0);
( 585167.4, 4136094.8,      11.9,      11.9,       0.0);        ( 585189.4, 4136094.8,      11.9,      11.9,       0.0);
( 585211.4, 4136094.8,      11.9,      11.9,       0.0);        ( 585233.4, 4136094.8,      11.9,      11.9,       0.0);
( 585255.4, 4136094.8,      11.9,      11.9,       0.0);        ( 585277.4, 4136094.8,      11.9,      11.9,       0.0);
( 585299.4, 4136094.8,      11.9,      11.9,       0.0);        ( 585321.4, 4136094.8,      11.9,      11.9,       0.0);
```


 **MODELOPTs: NonDFAULT CONC   FLAT   URBAN

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

```
( 585343.4, 4136094.8,      11.9,      11.9,       0.0);        ( 585365.4, 4136094.8,      11.9,      11.9,       0.0);
( 585387.4, 4136094.8,      11.9,      11.9,       0.0);        ( 585409.4, 4136094.8,      11.9,      11.9,       0.0);
( 585431.4, 4136094.8,      11.9,      11.9,       0.0);        ( 585453.4, 4136094.8,      11.9,      11.9,       0.0);
( 585475.4, 4136094.8,      11.9,      11.9,       0.0);        ( 585497.4, 4136094.8,      11.9,      11.9,       0.0);
( 585519.4, 4136094.8,      11.9,      11.9,       0.0);        ( 585079.4, 4136108.3,      11.9,      11.9,       0.0);
( 585101.4, 4136108.3,      11.9,      11.9,       0.0);        ( 585123.4, 4136108.3,      11.9,      11.9,       0.0);
( 585145.4, 4136108.3,      11.9,      11.9,       0.0);        ( 585167.4, 4136108.3,      11.9,      11.9,       0.0);
( 585189.4, 4136108.3,      11.9,      11.9,       0.0);        ( 585211.4, 4136108.3,      11.9,      11.9,       0.0);
```

```
( 585233.4, 4136108.3,     11.9,     11.9,      0.0);      ( 585255.4, 4136108.3,     11.9,     11.9,      0.0);
( 585277.4, 4136108.3,     11.9,     11.9,      0.0);      ( 585299.4, 4136108.3,     11.9,     11.9,      0.0);
( 585321.4, 4136108.3,     11.9,     11.9,      0.0);      ( 585343.4, 4136108.3,     11.9,     11.9,      0.0);
( 585365.4, 4136108.3,     11.9,     11.9,      0.0);      ( 585387.4, 4136108.3,     11.9,     11.9,      0.0);
( 585409.4, 4136108.3,     11.9,     11.9,      0.0);      ( 585431.4, 4136108.3,     11.9,     11.9,      0.0);
( 585453.4, 4136108.3,     11.9,     11.9,      0.0);      ( 585475.4, 4136108.3,     11.9,     11.9,      0.0);
( 585497.4, 4136108.3,     11.9,     11.9,      0.0);      ( 585519.4, 4136108.3,     11.9,     11.9,      0.0);
( 585079.4, 4136121.7,     11.9,     11.9,      0.0);      ( 585101.4, 4136121.7,     11.9,     11.9,      0.0);
( 585123.4, 4136121.7,     11.9,     11.9,      0.0);      ( 585145.4, 4136121.7,     11.9,     11.9,      0.0);
( 585167.4, 4136121.7,     11.9,     11.9,      0.0);      ( 585189.4, 4136121.7,     11.9,     11.9,      0.0);
( 585211.4, 4136121.7,     11.9,     11.9,      0.0);      ( 585233.4, 4136121.7,     11.9,     11.9,      0.0);
( 585255.4, 4136121.7,     11.9,     11.9,      0.0);      ( 585277.4, 4136121.7,     11.9,     11.9,      0.0);
( 585299.4, 4136121.7,     11.9,     11.9,      0.0);      ( 585321.4, 4136121.7,     11.9,     11.9,      0.0);
( 585343.4, 4136121.7,     11.9,     11.9,      0.0);      ( 585365.4, 4136121.7,     11.9,     11.9,      0.0);
( 585387.4, 4136121.7,     11.9,     11.9,      0.0);      ( 585409.4, 4136121.7,     11.9,     11.9,      0.0);
( 585431.4, 4136121.7,     11.9,     11.9,      0.0);      ( 585453.4, 4136121.7,     11.9,     11.9,      0.0);
( 585475.4, 4136121.7,     11.9,     11.9,      0.0);      ( 585497.4, 4136121.7,     11.9,     11.9,      0.0);
( 585519.4, 4136121.7,     11.9,     11.9,      0.0);      ( 585079.4, 4136135.2,     11.9,     11.9,      0.0);
( 585101.4, 4136135.2,     11.9,     11.9,      0.0);      ( 585123.4, 4136135.2,     11.9,     11.9,      0.0);
( 585145.4, 4136135.2,     11.9,     11.9,      0.0);      ( 585167.4, 4136135.2,     11.9,     11.9,      0.0);
( 585189.4, 4136135.2,     11.9,     11.9,      0.0);      ( 585211.4, 4136135.2,     11.9,     11.9,      0.0);
( 585233.4, 4136135.2,     11.9,     11.9,      0.0);      ( 585255.4, 4136135.2,     11.9,     11.9,      0.0);
( 585277.4, 4136135.2,     11.9,     11.9,      0.0);      ( 585299.4, 4136135.2,     11.9,     11.9,      0.0);
( 585321.4, 4136135.2,     11.9,     11.9,      0.0);      ( 585343.4, 4136135.2,     11.9,     11.9,      0.0);
( 585365.4, 4136135.2,     11.9,     11.9,      0.0);      ( 585387.4, 4136135.2,     11.9,     11.9,      0.0);
( 585409.4, 4136135.2,     11.9,     11.9,      0.0);      ( 585431.4, 4136135.2,     11.9,     11.9,      0.0);
( 585453.4, 4136135.2,     11.9,     11.9,      0.0);      ( 585475.4, 4136135.2,     11.9,     11.9,      0.0);
( 585497.4, 4136135.2,     11.9,     11.9,      0.0);      ( 585519.4, 4136135.2,     11.9,     11.9,      0.0);
( 585079.4, 4136148.7,     11.9,     11.9,      0.0);      ( 585101.4, 4136148.7,     11.9,     11.9,      0.0);
( 585123.4, 4136148.7,     11.9,     11.9,      0.0);      ( 585145.4, 4136148.7,     11.9,     11.9,      0.0);
( 585167.4, 4136148.7,     11.9,     11.9,      0.0);      ( 585189.4, 4136148.7,     11.9,     11.9,      0.0);
( 585211.4, 4136148.7,     11.9,     11.9,      0.0);      ( 585233.4, 4136148.7,     11.9,     11.9,      0.0);
( 585255.4, 4136148.7,     11.9,     11.9,      0.0);      ( 585277.4, 4136148.7,     11.9,     11.9,      0.0);
( 585299.4, 4136148.7,     11.9,     11.9,      0.0);      ( 585321.4, 4136148.7,     11.9,     11.9,      0.0);
( 585343.4, 4136148.7,     11.9,     11.9,      0.0);      ( 585365.4, 4136148.7,     11.9,     11.9,      0.0);
( 585387.4, 4136148.7,     11.9,     11.9,      0.0);      ( 585409.4, 4136148.7,     11.9,     11.9,      0.0);
( 585431.4, 4136148.7,     11.9,     11.9,      0.0);      ( 585453.4, 4136148.7,     11.9,     11.9,      0.0);
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 **MODELOPTs: NonDFAULT CONC   FLAT   URBAN

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

```
( 585475.4, 4136148.7,     11.9,     11.9,      0.0);      ( 585497.4, 4136148.7,     11.9,     11.9,      0.0);
( 585519.4, 4136148.7,     11.9,     11.9,      0.0);      ( 585079.4, 4136162.1,     11.9,     11.9,      0.0);
( 585101.4, 4136162.1,     11.9,     11.9,      0.0);      ( 585123.4, 4136162.1,     11.9,     11.9,      0.0);
( 585145.4, 4136162.1,     11.9,     11.9,      0.0);      ( 585167.4, 4136162.1,     11.9,     11.9,      0.0);
( 585189.4, 4136162.1,     11.9,     11.9,      0.0);      ( 585211.4, 4136162.1,     11.9,     11.9,      0.0);
( 585233.4, 4136162.1,     11.9,     11.9,      0.0);      ( 585255.4, 4136162.1,     11.9,     11.9,      0.0);
( 585277.4, 4136162.1,     11.9,     11.9,      0.0);      ( 585299.4, 4136162.1,     11.9,     11.9,      0.0);
( 585321.4, 4136162.1,     11.9,     11.9,      0.0);      ( 585343.4, 4136162.1,     11.9,     11.9,      0.0);
( 585365.4, 4136162.1,     11.9,     11.9,      0.0);      ( 585387.4, 4136162.1,     11.9,     11.9,      0.0);
( 585409.4, 4136162.1,     11.9,     11.9,      0.0);      ( 585431.4, 4136162.1,     11.9,     11.9,      0.0);
( 585453.4, 4136162.1,     11.9,     11.9,      0.0);      ( 585475.4, 4136162.1,     11.9,     11.9,      0.0);
( 585497.4, 4136162.1,     11.9,     11.9,      0.0);      ( 585519.4, 4136162.1,     11.9,     11.9,      0.0);
( 585079.4, 4136175.6,     11.9,     11.9,      0.0);      ( 585101.4, 4136175.6,     11.9,     11.9,      0.0);
( 585123.4, 4136175.6,     11.9,     11.9,      0.0);      ( 585145.4, 4136175.6,     11.9,     11.9,      0.0);
( 585167.4, 4136175.6,     11.9,     11.9,      0.0);      ( 585189.4, 4136175.6,     11.9,     11.9,      0.0);
( 585211.4, 4136175.6,     11.9,     11.9,      0.0);      ( 585233.4, 4136175.6,     11.9,     11.9,      0.0);
( 585255.4, 4136175.6,     11.9,     11.9,      0.0);      ( 585277.4, 4136175.6,     11.9,     11.9,      0.0);
( 585299.4, 4136175.6,     11.9,     11.9,      0.0);      ( 585321.4, 4136175.6,     11.9,     11.9,      0.0);
( 585343.4, 4136175.6,     11.9,     11.9,      0.0);      ( 585365.4, 4136175.6,     11.9,     11.9,      0.0);
( 585387.4, 4136175.6,     11.9,     11.9,      0.0);      ( 585409.4, 4136175.6,     11.9,     11.9,      0.0);
```

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    ( 585431.4, 4136175.6,      11.9,      11.9,       0.0);        ( 585453.4, 4136175.6,      11.9,      11.9,       0.0);
    ( 585475.4, 4136175.6,      11.9,      11.9,       0.0);        ( 585497.4, 4136175.6,      11.9,      11.9,       0.0);
    ( 585519.4, 4136175.6,      11.9,      11.9,       0.0);        ( 585079.4, 4136189.1,      11.9,      11.9,       0.0);
    ( 585101.4, 4136189.1,      11.9,      11.9,       0.0);        ( 585123.4, 4136189.1,      11.9,      11.9,       0.0);
    ( 585145.4, 4136189.1,      11.9,      11.9,       0.0);        ( 585167.4, 4136189.1,      11.9,      11.9,       0.0);
    ( 585189.4, 4136189.1,      11.9,      11.9,       0.0);        ( 585211.4, 4136189.1,      11.9,      11.9,       0.0);
    ( 585233.4, 4136189.1,      11.9,      11.9,       0.0);        ( 585255.4, 4136189.1,      11.9,      11.9,       0.0);
    ( 585277.4, 4136189.1,      11.9,      11.9,       0.0);        ( 585299.4, 4136189.1,      11.9,      11.9,       0.0);
    ( 585321.4, 4136189.1,      11.9,      11.9,       0.0);        ( 585343.4, 4136189.1,      11.9,      11.9,       0.0);
    ( 585365.4, 4136189.1,      11.9,      11.9,       0.0);        ( 585387.4, 4136189.1,      11.9,      11.9,       0.0);
    ( 585409.4, 4136189.1,      11.9,      11.9,       0.0);        ( 585431.4, 4136189.1,      11.9,      11.9,       0.0);
    ( 585453.4, 4136189.1,      11.9,      11.9,       0.0);        ( 585475.4, 4136189.1,      11.9,      11.9,       0.0);
    ( 585497.4, 4136189.1,      11.9,      11.9,       0.0);        ( 585519.4, 4136189.1,      11.9,      11.9,       0.0);
    ( 585079.4, 4136202.6,      11.9,      11.9,       0.0);        ( 585101.4, 4136202.6,      11.9,      11.9,       0.0);
    ( 585123.4, 4136202.6,      11.9,      11.9,       0.0);        ( 585145.4, 4136202.6,      11.9,      11.9,       0.0);
    ( 585167.4, 4136202.6,      11.9,      11.9,       0.0);        ( 585189.4, 4136202.6,      11.9,      11.9,       0.0);
    ( 585211.4, 4136202.6,      11.9,      11.9,       0.0);        ( 585233.4, 4136202.6,      11.9,      11.9,       0.0);
    ( 585255.4, 4136202.6,      11.9,      11.9,       0.0);        ( 585277.4, 4136202.6,      11.9,      11.9,       0.0);
    ( 585299.4, 4136202.6,      11.9,      11.9,       0.0);        ( 585321.4, 4136202.6,      11.9,      11.9,       0.0);
    ( 585343.4, 4136202.6,      11.9,      11.9,       0.0);        ( 585365.4, 4136202.6,      11.9,      11.9,       0.0);
    ( 585387.4, 4136202.6,      11.9,      11.9,       0.0);        ( 585409.4, 4136202.6,      11.9,      11.9,       0.0);
    ( 585431.4, 4136202.6,      11.9,      11.9,       0.0);        ( 585453.4, 4136202.6,      11.9,      11.9,       0.0);
    ( 585475.4, 4136202.6,      11.9,      11.9,       0.0);        ( 585497.4, 4136202.6,      11.9,      11.9,       0.0);
    ( 585519.4, 4136202.6,      11.9,      11.9,       0.0);        ( 585079.4, 4136216.0,      11.9,      11.9,       0.0);
    ( 585101.4, 4136216.0,      11.9,      11.9,       0.0);        ( 585123.4, 4136216.0,      11.9,      11.9,       0.0);
□*** AERMOD - VERSION  15181 ***   *** H:\pdata\149354\Environmental\Technical Studies\HRA\AERMOD\Oppidan\O ***       11/16/15
 *** AERMET - VERSION  14134 ***   ***                                                                ***       16:32:45
                                                                                                               PAGE  10
 **MODELOPTs:   NonDFAULT CONC      FLAT      URBAN

                                      *** DISCRETE CARTESIAN RECEPTORS ***
                                    (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                (METERS)

    ( 585145.4, 4136216.0,      11.9,      11.9,       0.0);        ( 585167.4, 4136216.0,      11.9,      11.9,       0.0);
    ( 585189.4, 4136216.0,      11.9,      11.9,       0.0);        ( 585211.4, 4136216.0,      11.9,      11.9,       0.0);
    ( 585233.4, 4136216.0,      11.9,      11.9,       0.0);        ( 585255.4, 4136216.0,      11.9,      11.9,       0.0);
    ( 585277.4, 4136216.0,      11.9,      11.9,       0.0);        ( 585299.4, 4136216.0,      11.9,      11.9,       0.0);
    ( 585321.4, 4136216.0,      11.9,      11.9,       0.0);        ( 585343.4, 4136216.0,      11.9,      11.9,       0.0);
    ( 585365.4, 4136216.0,      11.9,      11.9,       0.0);        ( 585387.4, 4136216.0,      11.9,      11.9,       0.0);
    ( 585409.4, 4136216.0,      11.9,      11.9,       0.0);        ( 585431.4, 4136216.0,      11.9,      11.9,       0.0);
    ( 585453.4, 4136216.0,      11.9,      11.9,       0.0);        ( 585475.4, 4136216.0,      11.9,      11.9,       0.0);
    ( 585497.4, 4136216.0,      11.9,      11.9,       0.0);        ( 585519.4, 4136216.0,      11.9,      11.9,       0.0);
    ( 585079.4, 4136229.5,      11.9,      11.9,       0.0);        ( 585101.4, 4136229.5,      11.9,      11.9,       0.0);
    ( 585123.4, 4136229.5,      11.9,      11.9,       0.0);        ( 585145.4, 4136229.5,      11.9,      11.9,       0.0);
    ( 585167.4, 4136229.5,      11.9,      11.9,       0.0);        ( 585189.4, 4136229.5,      11.9,      11.9,       0.0);
    ( 585211.4, 4136229.5,      11.9,      11.9,       0.0);        ( 585233.4, 4136229.5,      11.9,      11.9,       0.0);
    ( 585255.4, 4136229.5,      11.9,      11.9,       0.0);        ( 585277.4, 4136229.5,      11.9,      11.9,       0.0);
    ( 585299.4, 4136229.5,      11.9,      11.9,       0.0);        ( 585321.4, 4136229.5,      11.9,      11.9,       0.0);
    ( 585343.4, 4136229.5,      11.9,      11.9,       0.0);        ( 585365.4, 4136229.5,      11.9,      11.9,       0.0);
    ( 585387.4, 4136229.5,      11.9,      11.9,       0.0);        ( 585409.4, 4136229.5,      11.9,      11.9,       0.0);
    ( 585431.4, 4136229.5,      11.9,      11.9,       0.0);        ( 585453.4, 4136229.5,      11.9,      11.9,       0.0);
    ( 585475.4, 4136229.5,      11.9,      11.9,       0.0);        ( 585497.4, 4136229.5,      11.9,      11.9,       0.0);
    ( 585519.4, 4136229.5,      11.9,      11.9,       0.0);        ( 585079.4, 4136243.0,      11.9,      11.9,       0.0);
    ( 585101.4, 4136243.0,      11.9,      11.9,       0.0);        ( 585123.4, 4136243.0,      11.9,      11.9,       0.0);
    ( 585145.4, 4136243.0,      11.9,      11.9,       0.0);        ( 585167.4, 4136243.0,      11.9,      11.9,       0.0);
    ( 585189.4, 4136243.0,      11.9,      11.9,       0.0);        ( 585211.4, 4136243.0,      11.9,      11.9,       0.0);
    ( 585233.4, 4136243.0,      11.9,      11.9,       0.0);        ( 585255.4, 4136243.0,      11.9,      11.9,       0.0);
    ( 585277.4, 4136243.0,      11.9,      11.9,       0.0);        ( 585299.4, 4136243.0,      11.9,      11.9,       0.0);
    ( 585321.4, 4136243.0,      11.9,      11.9,       0.0);        ( 585343.4, 4136243.0,      11.9,      11.9,       0.0);
    ( 585365.4, 4136243.0,      11.9,      11.9,       0.0);        ( 585387.4, 4136243.0,      11.9,      11.9,       0.0);
    ( 585409.4, 4136243.0,      11.9,      11.9,       0.0);        ( 585431.4, 4136243.0,      11.9,      11.9,       0.0);
    ( 585453.4, 4136243.0,      11.9,      11.9,       0.0);        ( 585475.4, 4136243.0,      11.9,      11.9,       0.0);
    ( 585497.4, 4136243.0,      11.9,      11.9,       0.0);        ( 585519.4, 4136243.0,      11.9,      11.9,       0.0);
    ( 585079.4, 4136256.4,      11.9,      11.9,       0.0);        ( 585101.4, 4136256.4,      11.9,      11.9,       0.0);
    ( 585123.4, 4136256.4,      11.9,      11.9,       0.0);        ( 585145.4, 4136256.4,      11.9,      11.9,       0.0);
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    ( 585167.4, 4136256.4,      11.9,      11.9,       0.0);        ( 585189.4, 4136256.4,      11.9,      11.9,       0.0);
    ( 585211.4, 4136256.4,      11.9,      11.9,       0.0);        ( 585233.4, 4136256.4,      11.9,      11.9,       0.0);
    ( 585255.4, 4136256.4,      11.9,      11.9,       0.0);        ( 585277.4, 4136256.4,      11.9,      11.9,       0.0);
    ( 585299.4, 4136256.4,      11.9,      11.9,       0.0);        ( 585321.4, 4136256.4,      11.9,      11.9,       0.0);
    ( 585343.4, 4136256.4,      11.9,      11.9,       0.0);        ( 585365.4, 4136256.4,      11.9,      11.9,       0.0);
    ( 585387.4, 4136256.4,      11.9,      11.9,       0.0);        ( 585409.4, 4136256.4,      11.9,      11.9,       0.0);
    ( 585431.4, 4136256.4,      11.9,      11.9,       0.0);        ( 585453.4, 4136256.4,      11.9,      11.9,       0.0);
    ( 585475.4, 4136256.4,      11.9,      11.9,       0.0);        ( 585497.4, 4136256.4,      11.9,      11.9,       0.0);
    ( 585519.4, 4136256.4,      11.9,      11.9,       0.0);        ( 585255.5, 4135570.9,      11.9,      11.9,       0.0);
    ( 585276.1, 4135570.9,      11.9,      11.9,       0.0);        ( 585296.8, 4135570.9,      11.9,      11.9,       0.0);
    ( 585317.4, 4135570.9,      11.9,      11.9,       0.0);        ( 585338.1, 4135570.9,      11.9,      11.9,       0.0);
    ( 585358.7, 4135570.9,      11.9,      11.9,       0.0);        ( 585379.4, 4135570.9,      11.9,      11.9,       0.0);
    ( 585400.0, 4135570.9,      11.9,      11.9,       0.0);        ( 585420.7, 4135570.9,      11.9,      11.9,       0.0);
□*** AERMOD - VERSION  15181 ***   *** H:\pdata\149354\Environmental\Technical Studies\HRA\AERMOD\Oppidan\O ***       11/16/15
 *** AERMET - VERSION  14134 ***   ***                                                                  ***      16:32:45
                                                                                                                 PAGE  11
 **MODELOPTs:   NonDFAULT CONC      FLAT      URBAN

                                        *** DISCRETE CARTESIAN RECEPTORS ***
                                       (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                 (METERS)

    ( 585441.3, 4135570.9,      11.9,      11.9,       0.0);        ( 585462.0, 4135570.9,      11.9,      11.9,       0.0);
    ( 585482.6, 4135570.9,      11.9,      11.9,       0.0);        ( 585503.2, 4135570.9,      11.9,      11.9,       0.0);
    ( 585523.9, 4135570.9,      11.9,      11.9,       0.0);        ( 585544.6, 4135570.9,      11.9,      11.9,       0.0);
    ( 585565.2, 4135570.9,      11.9,      11.9,       0.0);        ( 585585.9, 4135570.9,      11.9,      11.9,       0.0);
    ( 585606.5, 4135570.9,      11.9,      11.9,       0.0);        ( 585627.2, 4135570.9,      11.9,      11.9,       0.0);
    ( 585647.8, 4135570.9,      11.9,      11.9,       0.0);        ( 585668.5, 4135570.9,      11.9,      11.9,       0.0);
    ( 585255.5, 4135584.6,      11.9,      11.9,       0.0);        ( 585276.1, 4135584.6,      11.9,      11.9,       0.0);
    ( 585296.8, 4135584.6,      11.9,      11.9,       0.0);        ( 585317.4, 4135584.6,      11.9,      11.9,       0.0);
    ( 585338.1, 4135584.6,      11.9,      11.9,       0.0);        ( 585358.7, 4135584.6,      11.9,      11.9,       0.0);
    ( 585379.4, 4135584.6,      11.9,      11.9,       0.0);        ( 585400.0, 4135584.6,      11.9,      11.9,       0.0);
    ( 585420.7, 4135584.6,      11.9,      11.9,       0.0);        ( 585441.3, 4135584.6,      11.9,      11.9,       0.0);
    ( 585462.0, 4135584.6,      11.9,      11.9,       0.0);        ( 585482.6, 4135584.6,      11.9,      11.9,       0.0);
    ( 585503.2, 4135584.6,      11.9,      11.9,       0.0);        ( 585523.9, 4135584.6,      11.9,      11.9,       0.0);
    ( 585544.6, 4135584.6,      11.9,      11.9,       0.0);        ( 585565.2, 4135584.6,      11.9,      11.9,       0.0);
    ( 585585.9, 4135584.6,      11.9,      11.9,       0.0);        ( 585606.5, 4135584.6,      11.9,      11.9,       0.0);
    ( 585627.2, 4135584.6,      11.9,      11.9,       0.0);        ( 585647.8, 4135584.6,      11.9,      11.9,       0.0);
    ( 585668.5, 4135584.6,      11.9,      11.9,       0.0);        ( 585255.5, 4135598.4,      11.9,      11.9,       0.0);
    ( 585276.1, 4135598.4,      11.9,      11.9,       0.0);        ( 585296.8, 4135598.4,      11.9,      11.9,       0.0);
    ( 585317.4, 4135598.4,      11.9,      11.9,       0.0);        ( 585338.1, 4135598.4,      11.9,      11.9,       0.0);
    ( 585358.7, 4135598.4,      11.9,      11.9,       0.0);        ( 585379.4, 4135598.4,      11.9,      11.9,       0.0);
    ( 585400.0, 4135598.4,      11.9,      11.9,       0.0);        ( 585420.7, 4135598.4,      11.9,      11.9,       0.0);
    ( 585441.3, 4135598.4,      11.9,      11.9,       0.0);        ( 585462.0, 4135598.4,      11.9,      11.9,       0.0);
    ( 585482.6, 4135598.4,      11.9,      11.9,       0.0);        ( 585503.2, 4135598.4,      11.9,      11.9,       0.0);
    ( 585523.9, 4135598.4,      11.9,      11.9,       0.0);        ( 585544.6, 4135598.4,      11.9,      11.9,       0.0);
    ( 585565.2, 4135598.4,      11.9,      11.9,       0.0);        ( 585585.9, 4135598.4,      11.9,      11.9,       0.0);
    ( 585606.5, 4135598.4,      11.9,      11.9,       0.0);        ( 585627.2, 4135598.4,      11.9,      11.9,       0.0);
    ( 585647.8, 4135598.4,      11.9,      11.9,       0.0);        ( 585668.5, 4135598.4,      11.9,      11.9,       0.0);
    ( 585255.5, 4135612.1,      11.9,      11.9,       0.0);        ( 585276.1, 4135612.1,      11.9,      11.9,       0.0);
    ( 585296.8, 4135612.1,      11.9,      11.9,       0.0);        ( 585317.4, 4135612.1,      11.9,      11.9,       0.0);
    ( 585338.1, 4135612.1,      11.9,      11.9,       0.0);        ( 585358.7, 4135612.1,      11.9,      11.9,       0.0);
    ( 585379.4, 4135612.1,      11.9,      11.9,       0.0);        ( 585400.0, 4135612.1,      11.9,      11.9,       0.0);
    ( 585420.7, 4135612.1,      11.9,      11.9,       0.0);        ( 585441.3, 4135612.1,      11.9,      11.9,       0.0);
    ( 585462.0, 4135612.1,      11.9,      11.9,       0.0);        ( 585482.6, 4135612.1,      11.9,      11.9,       0.0);
    ( 585503.2, 4135612.1,      11.9,      11.9,       0.0);        ( 585523.9, 4135612.1,      11.9,      11.9,       0.0);
    ( 585544.6, 4135612.1,      11.9,      11.9,       0.0);        ( 585565.2, 4135612.1,      11.9,      11.9,       0.0);
    ( 585585.9, 4135612.1,      11.9,      11.9,       0.0);        ( 585606.5, 4135612.1,      11.9,      11.9,       0.0);
    ( 585627.2, 4135612.1,      11.9,      11.9,       0.0);        ( 585647.8, 4135612.1,      11.9,      11.9,       0.0);
    ( 585668.5, 4135612.1,      11.9,      11.9,       0.0);        ( 585255.5, 4135625.9,      11.9,      11.9,       0.0);
    ( 585276.1, 4135625.9,      11.9,      11.9,       0.0);        ( 585296.8, 4135625.9,      11.9,      11.9,       0.0);
    ( 585317.4, 4135625.9,      11.9,      11.9,       0.0);        ( 585338.1, 4135625.9,      11.9,      11.9,       0.0);
    ( 585358.7, 4135625.9,      11.9,      11.9,       0.0);        ( 585379.4, 4135625.9,      11.9,      11.9,       0.0);
    ( 585400.0, 4135625.9,      11.9,      11.9,       0.0);        ( 585420.7, 4135625.9,      11.9,      11.9,       0.0);
    ( 585441.3, 4135625.9,      11.9,      11.9,       0.0);        ( 585462.0, 4135625.9,      11.9,      11.9,       0.0);
    ( 585482.6, 4135625.9,      11.9,      11.9,       0.0);        ( 585503.2, 4135625.9,      11.9,      11.9,       0.0);
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(585523.9, 4135625.9, 11.9, 11.9, 0.0); (585544.6, 4135625.9, 11.9, 11.9, 0.0);

**MODELOPTs: NonDFAULT CONC FLAT URBAN

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(585565.2, 4135625.9, 11.9, 11.9, 0.0); (585585.9, 4135625.9, 11.9, 11.9, 0.0);
(585606.5, 4135625.9, 11.9, 11.9, 0.0); (585627.2, 4135625.9, 11.9, 11.9, 0.0);
(585647.8, 4135625.9, 11.9, 11.9, 0.0); (585668.5, 4135625.9, 11.9, 11.9, 0.0);
(585255.5, 4135639.6, 11.9, 11.9, 0.0); (585276.1, 4135639.6, 11.9, 11.9, 0.0);
(585296.8, 4135639.6, 11.9, 11.9, 0.0); (585317.4, 4135639.6, 11.9, 11.9, 0.0);
(585338.1, 4135639.6, 11.9, 11.9, 0.0); (585358.7, 4135639.6, 11.9, 11.9, 0.0);
(585379.4, 4135639.6, 11.9, 11.9, 0.0); (585400.0, 4135639.6, 11.9, 11.9, 0.0);
(585420.7, 4135639.6, 11.9, 11.9, 0.0); (585441.3, 4135639.6, 11.9, 11.9, 0.0);
(585462.0, 4135639.6, 11.9, 11.9, 0.0); (585482.6, 4135639.6, 11.9, 11.9, 0.0);
(585503.2, 4135639.6, 11.9, 11.9, 0.0); (585523.9, 4135639.6, 11.9, 11.9, 0.0);
(585544.6, 4135639.6, 11.9, 11.9, 0.0); (585565.2, 4135639.6, 11.9, 11.9, 0.0);
(585585.9, 4135639.6, 11.9, 11.9, 0.0); (585606.5, 4135639.6, 11.9, 11.9, 0.0);
(585627.2, 4135639.6, 11.9, 11.9, 0.0); (585647.8, 4135639.6, 11.9, 11.9, 0.0);
(585668.5, 4135639.6, 11.9, 11.9, 0.0); (585255.5, 4135653.4, 11.9, 11.9, 0.0);
(585276.1, 4135653.4, 11.9, 11.9, 0.0); (585296.8, 4135653.4, 11.9, 11.9, 0.0);
(585317.4, 4135653.4, 11.9, 11.9, 0.0); (585338.1, 4135653.4, 11.9, 11.9, 0.0);
(585358.7, 4135653.4, 11.9, 11.9, 0.0); (585379.4, 4135653.4, 11.9, 11.9, 0.0);
(585400.0, 4135653.4, 11.9, 11.9, 0.0); (585420.7, 4135653.4, 11.9, 11.9, 0.0);
(585441.3, 4135653.4, 11.9, 11.9, 0.0); (585462.0, 4135653.4, 11.9, 11.9, 0.0);
(585482.6, 4135653.4, 11.9, 11.9, 0.0); (585503.2, 4135653.4, 11.9, 11.9, 0.0);
(585523.9, 4135653.4, 11.9, 11.9, 0.0); (585544.6, 4135653.4, 11.9, 11.9, 0.0);
(585565.2, 4135653.4, 11.9, 11.9, 0.0); (585585.9, 4135653.4, 11.9, 11.9, 0.0);
(585606.5, 4135653.4, 11.9, 11.9, 0.0); (585627.2, 4135653.4, 11.9, 11.9, 0.0);
(585647.8, 4135653.4, 11.9, 11.9, 0.0); (585668.5, 4135653.4, 11.9, 11.9, 0.0);
(585255.5, 4135667.1, 11.9, 11.9, 0.0); (585276.1, 4135667.1, 11.9, 11.9, 0.0);
(585296.8, 4135667.1, 11.9, 11.9, 0.0); (585317.4, 4135667.1, 11.9, 11.9, 0.0);
(585338.1, 4135667.1, 11.9, 11.9, 0.0); (585358.7, 4135667.1, 11.9, 11.9, 0.0);
(585379.4, 4135667.1, 11.9, 11.9, 0.0); (585400.0, 4135667.1, 11.9, 11.9, 0.0);
(585420.7, 4135667.1, 11.9, 11.9, 0.0); (585441.3, 4135667.1, 11.9, 11.9, 0.0);
(585462.0, 4135667.1, 11.9, 11.9, 0.0); (585482.6, 4135667.1, 11.9, 11.9, 0.0);
(585503.2, 4135667.1, 11.9, 11.9, 0.0); (585523.9, 4135667.1, 11.9, 11.9, 0.0);
(585544.6, 4135667.1, 11.9, 11.9, 0.0); (585565.2, 4135667.1, 11.9, 11.9, 0.0);
(585585.9, 4135667.1, 11.9, 11.9, 0.0); (585606.5, 4135667.1, 11.9, 11.9, 0.0);
(585627.2, 4135667.1, 11.9, 11.9, 0.0); (585647.8, 4135667.1, 11.9, 11.9, 0.0);
(585668.5, 4135667.1, 11.9, 11.9, 0.0); (585255.5, 4135680.9, 11.9, 11.9, 0.0);
(585276.1, 4135680.9, 11.9, 11.9, 0.0); (585296.8, 4135680.9, 11.9, 11.9, 0.0);
(585317.4, 4135680.9, 11.9, 11.9, 0.0); (585338.1, 4135680.9, 11.9, 11.9, 0.0);
(585358.7, 4135680.9, 11.9, 11.9, 0.0); (585379.4, 4135680.9, 11.9, 11.9, 0.0);
(585400.0, 4135680.9, 11.9, 11.9, 0.0); (585420.7, 4135680.9, 11.9, 11.9, 0.0);
(585441.3, 4135680.9, 11.9, 11.9, 0.0); (585462.0, 4135680.9, 11.9, 11.9, 0.0);
(585482.6, 4135680.9, 11.9, 11.9, 0.0); (585503.2, 4135680.9, 11.9, 11.9, 0.0);
(585523.9, 4135680.9, 11.9, 11.9, 0.0); (585544.6, 4135680.9, 11.9, 11.9, 0.0);
(585565.2, 4135680.9, 11.9, 11.9, 0.0); (585585.9, 4135680.9, 11.9, 11.9, 0.0);
(585606.5, 4135680.9, 11.9, 11.9, 0.0); (585627.2, 4135680.9, 11.9, 11.9, 0.0);
(585647.8, 4135680.9, 11.9, 11.9, 0.0); (585668.5, 4135680.9, 11.9, 11.9, 0.0);

**MODELOPTs: NonDFAULT CONC FLAT URBAN

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(585255.5, 4135694.6, 11.9, 11.9, 0.0); (585276.1, 4135694.6, 11.9, 11.9, 0.0);
(585296.8, 4135694.6, 11.9, 11.9, 0.0); (585317.4, 4135694.6, 11.9, 11.9, 0.0);

```
( 585338.1, 4135694.6,     11.9,     11.9,      0.0);    ( 585358.7, 4135694.6,     11.9,     11.9,      0.0);
( 585379.4, 4135694.6,     11.9,     11.9,      0.0);    ( 585400.0, 4135694.6,     11.9,     11.9,      0.0);
( 585420.7, 4135694.6,     11.9,     11.9,      0.0);    ( 585441.3, 4135694.6,     11.9,     11.9,      0.0);
( 585462.0, 4135694.6,     11.9,     11.9,      0.0);    ( 585482.6, 4135694.6,     11.9,     11.9,      0.0);
( 585503.2, 4135694.6,     11.9,     11.9,      0.0);    ( 585523.9, 4135694.6,     11.9,     11.9,      0.0);
( 585544.6, 4135694.6,     11.9,     11.9,      0.0);    ( 585565.2, 4135694.6,     11.9,     11.9,      0.0);
( 585585.9, 4135694.6,     11.9,     11.9,      0.0);    ( 585606.5, 4135694.6,     11.9,     11.9,      0.0);
( 585627.2, 4135694.6,     11.9,     11.9,      0.0);    ( 585647.8, 4135694.6,     11.9,     11.9,      0.0);
( 585668.5, 4135694.6,     11.9,     11.9,      0.0);    ( 585255.5, 4135708.4,     11.9,     11.9,      0.0);
( 585276.1, 4135708.4,     11.9,     11.9,      0.0);    ( 585296.8, 4135708.4,     11.9,     11.9,      0.0);
( 585317.4, 4135708.4,     11.9,     11.9,      0.0);    ( 585338.1, 4135708.4,     11.9,     11.9,      0.0);
( 585358.7, 4135708.4,     11.9,     11.9,      0.0);    ( 585379.4, 4135708.4,     11.9,     11.9,      0.0);
( 585400.0, 4135708.4,     11.9,     11.9,      0.0);    ( 585420.7, 4135708.4,     11.9,     11.9,      0.0);
( 585441.3, 4135708.4,     11.9,     11.9,      0.0);    ( 585462.0, 4135708.4,     11.9,     11.9,      0.0);
( 585482.6, 4135708.4,     11.9,     11.9,      0.0);    ( 585503.2, 4135708.4,     11.9,     11.9,      0.0);
( 585523.9, 4135708.4,     11.9,     11.9,      0.0);    ( 585544.6, 4135708.4,     11.9,     11.9,      0.0);
( 585565.2, 4135708.4,     11.9,     11.9,      0.0);    ( 585585.9, 4135708.4,     11.9,     11.9,      0.0);
( 585606.5, 4135708.4,     11.9,     11.9,      0.0);    ( 585627.2, 4135708.4,     11.9,     11.9,      0.0);
( 585647.8, 4135708.4,     11.9,     11.9,      0.0);    ( 585668.5, 4135708.4,     11.9,     11.9,      0.0);
( 585255.5, 4135722.1,     11.9,     11.9,      0.0);    ( 585276.1, 4135722.1,     11.9,     11.9,      0.0);
( 585296.8, 4135722.1,     11.9,     11.9,      0.0);    ( 585317.4, 4135722.1,     11.9,     11.9,      0.0);
( 585338.1, 4135722.1,     11.9,     11.9,      0.0);    ( 585358.7, 4135722.1,     11.9,     11.9,      0.0);
( 585379.4, 4135722.1,     11.9,     11.9,      0.0);    ( 585400.0, 4135722.1,     11.9,     11.9,      0.0);
( 585420.7, 4135722.1,     11.9,     11.9,      0.0);    ( 585441.3, 4135722.1,     11.9,     11.9,      0.0);
( 585462.0, 4135722.1,     11.9,     11.9,      0.0);    ( 585482.6, 4135722.1,     11.9,     11.9,      0.0);
( 585503.2, 4135722.1,     11.9,     11.9,      0.0);    ( 585523.9, 4135722.1,     11.9,     11.9,      0.0);
( 585544.6, 4135722.1,     11.9,     11.9,      0.0);    ( 585565.2, 4135722.1,     11.9,     11.9,      0.0);
( 585585.9, 4135722.1,     11.9,     11.9,      0.0);    ( 585606.5, 4135722.1,     11.9,     11.9,      0.0);
( 585627.2, 4135722.1,     11.9,     11.9,      0.0);    ( 585647.8, 4135722.1,     11.9,     11.9,      0.0);
( 585668.5, 4135722.1,     11.9,     11.9,      0.0);    ( 585255.5, 4135735.9,     11.9,     11.9,      0.0);
( 585276.1, 4135735.9,     11.9,     11.9,      0.0);    ( 585296.8, 4135735.9,     11.9,     11.9,      0.0);
( 585317.4, 4135735.9,     11.9,     11.9,      0.0);    ( 585338.1, 4135735.9,     11.9,     11.9,      0.0);
( 585358.7, 4135735.9,     11.9,     11.9,      0.0);    ( 585379.4, 4135735.9,     11.9,     11.9,      0.0);
( 585400.0, 4135735.9,     11.9,     11.9,      0.0);    ( 585420.7, 4135735.9,     11.9,     11.9,      0.0);
( 585441.3, 4135735.9,     11.9,     11.9,      0.0);    ( 585462.0, 4135735.9,     11.9,     11.9,      0.0);
( 585482.6, 4135735.9,     11.9,     11.9,      0.0);    ( 585503.2, 4135735.9,     11.9,     11.9,      0.0);
( 585523.9, 4135735.9,     11.9,     11.9,      0.0);    ( 585544.6, 4135735.9,     11.9,     11.9,      0.0);
( 585565.2, 4135735.9,     11.9,     11.9,      0.0);    ( 585585.9, 4135735.9,     11.9,     11.9,      0.0);
( 585606.5, 4135735.9,     11.9,     11.9,      0.0);    ( 585627.2, 4135735.9,     11.9,     11.9,      0.0);
( 585647.8, 4135735.9,     11.9,     11.9,      0.0);    ( 585668.5, 4135735.9,     11.9,     11.9,      0.0);
( 585255.5, 4135749.6,     11.9,     11.9,      0.0);    ( 585276.1, 4135749.6,     11.9,     11.9,      0.0);
( 585296.8, 4135749.6,     11.9,     11.9,      0.0);    ( 585317.4, 4135749.6,     11.9,     11.9,      0.0);
( 585338.1, 4135749.6,     11.9,     11.9,      0.0);    ( 585358.7, 4135749.6,     11.9,     11.9,      0.0);
```


**MODELOPTs: NonDFAULT CONC   FLAT   URBAN

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

```
( 585379.4, 4135749.6,     11.9,     11.9,      0.0);    ( 585400.0, 4135749.6,     11.9,     11.9,      0.0);
( 585420.7, 4135749.6,     11.9,     11.9,      0.0);    ( 585441.3, 4135749.6,     11.9,     11.9,      0.0);
( 585462.0, 4135749.6,     11.9,     11.9,      0.0);    ( 585482.6, 4135749.6,     11.9,     11.9,      0.0);
( 585503.2, 4135749.6,     11.9,     11.9,      0.0);    ( 585523.9, 4135749.6,     11.9,     11.9,      0.0);
( 585544.6, 4135749.6,     11.9,     11.9,      0.0);    ( 585565.2, 4135749.6,     11.9,     11.9,      0.0);
( 585585.9, 4135749.6,     11.9,     11.9,      0.0);    ( 585606.5, 4135749.6,     11.9,     11.9,      0.0);
( 585627.2, 4135749.6,     11.9,     11.9,      0.0);    ( 585647.8, 4135749.6,     11.9,     11.9,      0.0);
( 585668.5, 4135749.6,     11.9,     11.9,      0.0);    ( 585255.5, 4135763.4,     11.9,     11.9,      0.0);
( 585276.1, 4135763.4,     11.9,     11.9,      0.0);    ( 585296.8, 4135763.4,     11.9,     11.9,      0.0);
( 585317.4, 4135763.4,     11.9,     11.9,      0.0);    ( 585338.1, 4135763.4,     11.9,     11.9,      0.0);
( 585358.7, 4135763.4,     11.9,     11.9,      0.0);    ( 585379.4, 4135763.4,     11.9,     11.9,      0.0);
( 585400.0, 4135763.4,     11.9,     11.9,      0.0);    ( 585420.7, 4135763.4,     11.9,     11.9,      0.0);
( 585441.3, 4135763.4,     11.9,     11.9,      0.0);    ( 585462.0, 4135763.4,     11.9,     11.9,      0.0);
( 585482.6, 4135763.4,     11.9,     11.9,      0.0);    ( 585503.2, 4135763.4,     11.9,     11.9,      0.0);
```

(585523.9, 4135763.4, 11.9, 11.9, 0.0); (585544.6, 4135763.4, 11.9, 11.9, 0.0);
(585565.2, 4135763.4, 11.9, 11.9, 0.0); (585585.9, 4135763.4, 11.9, 11.9, 0.0);
(585606.5, 4135763.4, 11.9, 11.9, 0.0); (585627.2, 4135763.4, 11.9, 11.9, 0.0);
(585647.8, 4135763.4, 11.9, 11.9, 0.0); (585668.5, 4135763.4, 11.9, 11.9, 0.0);
(585255.5, 4135777.1, 11.9, 11.9, 0.0); (585276.1, 4135777.1, 11.9, 11.9, 0.0);
(585296.8, 4135777.1, 11.9, 11.9, 0.0); (585317.4, 4135777.1, 11.9, 11.9, 0.0);
(585338.1, 4135777.1, 11.9, 11.9, 0.0); (585358.7, 4135777.1, 11.9, 11.9, 0.0);
(585379.4, 4135777.1, 11.9, 11.9, 0.0); (585400.0, 4135777.1, 11.9, 11.9, 0.0);
(585420.7, 4135777.1, 11.9, 11.9, 0.0); (585441.3, 4135777.1, 11.9, 11.9, 0.0);
(585462.0, 4135777.1, 11.9, 11.9, 0.0); (585482.6, 4135777.1, 11.9, 11.9, 0.0);
(585503.2, 4135777.1, 11.9, 11.9, 0.0); (585523.9, 4135777.1, 11.9, 11.9, 0.0);
(585544.6, 4135777.1, 11.9, 11.9, 0.0); (585565.2, 4135777.1, 11.9, 11.9, 0.0);
(585585.9, 4135777.1, 11.9, 11.9, 0.0); (585606.5, 4135777.1, 11.9, 11.9, 0.0);
(585627.2, 4135777.1, 11.9, 11.9, 0.0); (585647.8, 4135777.1, 11.9, 11.9, 0.0);
(585668.5, 4135777.1, 11.9, 11.9, 0.0); (585255.5, 4135790.9, 11.9, 11.9, 0.0);
(585276.1, 4135790.9, 11.9, 11.9, 0.0); (585296.8, 4135790.9, 11.9, 11.9, 0.0);
(585317.4, 4135790.9, 11.9, 11.9, 0.0); (585338.1, 4135790.9, 11.9, 11.9, 0.0);
(585358.7, 4135790.9, 11.9, 11.9, 0.0); (585379.4, 4135790.9, 11.9, 11.9, 0.0);
(585400.0, 4135790.9, 11.9, 11.9, 0.0); (585420.7, 4135790.9, 11.9, 11.9, 0.0);
(585441.3, 4135790.9, 11.9, 11.9, 0.0); (585462.0, 4135790.9, 11.9, 11.9, 0.0);
(585482.6, 4135790.9, 11.9, 11.9, 0.0); (585503.2, 4135790.9, 11.9, 11.9, 0.0);
(585523.9, 4135790.9, 11.9, 11.9, 0.0); (585544.6, 4135790.9, 11.9, 11.9, 0.0);
(585565.2, 4135790.9, 11.9, 11.9, 0.0); (585585.9, 4135790.9, 11.9, 11.9, 0.0);
(585606.5, 4135790.9, 11.9, 11.9, 0.0); (585627.2, 4135790.9, 11.9, 11.9, 0.0);
(585647.8, 4135790.9, 11.9, 11.9, 0.0); (585668.5, 4135790.9, 11.9, 11.9, 0.0);
(585255.5, 4135804.6, 11.9, 11.9, 0.0); (585276.1, 4135804.6, 11.9, 11.9, 0.0);
(585296.8, 4135804.6, 11.9, 11.9, 0.0); (585317.4, 4135804.6, 11.9, 11.9, 0.0);
(585338.1, 4135804.6, 11.9, 11.9, 0.0); (585358.7, 4135804.6, 11.9, 11.9, 0.0);
(585379.4, 4135804.6, 11.9, 11.9, 0.0); (585400.0, 4135804.6, 11.9, 11.9, 0.0);
(585420.7, 4135804.6, 11.9, 11.9, 0.0); (585441.3, 4135804.6, 11.9, 11.9, 0.0);
(585462.0, 4135804.6, 11.9, 11.9, 0.0); (585482.6, 4135804.6, 11.9, 11.9, 0.0);

**MODELOPTs: NonDFAULT CONC FLAT URBAN

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(585503.2, 4135804.6, 11.9, 11.9, 0.0); (585523.9, 4135804.6, 11.9, 11.9, 0.0);
(585544.6, 4135804.6, 11.9, 11.9, 0.0); (585565.2, 4135804.6, 11.9, 11.9, 0.0);
(585585.9, 4135804.6, 11.9, 11.9, 0.0); (585606.5, 4135804.6, 11.9, 11.9, 0.0);
(585627.2, 4135804.6, 11.9, 11.9, 0.0); (585647.8, 4135804.6, 11.9, 11.9, 0.0);
(585668.5, 4135804.6, 11.9, 11.9, 0.0); (585255.5, 4135818.4, 11.9, 11.9, 0.0);
(585276.1, 4135818.4, 11.9, 11.9, 0.0); (585296.8, 4135818.4, 11.9, 11.9, 0.0);
(585317.4, 4135818.4, 11.9, 11.9, 0.0); (585338.1, 4135818.4, 11.9, 11.9, 0.0);
(585358.7, 4135818.4, 11.9, 11.9, 0.0); (585379.4, 4135818.4, 11.9, 11.9, 0.0);
(585400.0, 4135818.4, 11.9, 11.9, 0.0); (585420.7, 4135818.4, 11.9, 11.9, 0.0);
(585441.3, 4135818.4, 11.9, 11.9, 0.0); (585462.0, 4135818.4, 11.9, 11.9, 0.0);
(585482.6, 4135818.4, 11.9, 11.9, 0.0); (585503.2, 4135818.4, 11.9, 11.9, 0.0);
(585523.9, 4135818.4, 11.9, 11.9, 0.0); (585544.6, 4135818.4, 11.9, 11.9, 0.0);
(585565.2, 4135818.4, 11.9, 11.9, 0.0); (585585.9, 4135818.4, 11.9, 11.9, 0.0);
(585606.5, 4135818.4, 11.9, 11.9, 0.0); (585627.2, 4135818.4, 11.9, 11.9, 0.0);
(585647.8, 4135818.4, 11.9, 11.9, 0.0); (585668.5, 4135818.4, 11.9, 11.9, 0.0);
(585255.5, 4135832.1, 11.9, 11.9, 0.0); (585276.1, 4135832.1, 11.9, 11.9, 0.0);
(585296.8, 4135832.1, 11.9, 11.9, 0.0); (585317.4, 4135832.1, 11.9, 11.9, 0.0);
(585338.1, 4135832.1, 11.9, 11.9, 0.0); (585358.7, 4135832.1, 11.9, 11.9, 0.0);
(585379.4, 4135832.1, 11.9, 11.9, 0.0); (585400.0, 4135832.1, 11.9, 11.9, 0.0);
(585420.7, 4135832.1, 11.9, 11.9, 0.0); (585441.3, 4135832.1, 11.9, 11.9, 0.0);
(585462.0, 4135832.1, 11.9, 11.9, 0.0); (585482.6, 4135832.1, 11.9, 11.9, 0.0);
(585503.2, 4135832.1, 11.9, 11.9, 0.0); (585523.9, 4135832.1, 11.9, 11.9, 0.0);
(585544.6, 4135832.1, 11.9, 11.9, 0.0); (585565.2, 4135832.1, 11.9, 11.9, 0.0);
(585585.9, 4135832.1, 11.9, 11.9, 0.0); (585606.5, 4135832.1, 11.9, 11.9, 0.0);
(585627.2, 4135832.1, 11.9, 11.9, 0.0); (585647.8, 4135832.1, 11.9, 11.9, 0.0);
(585668.5, 4135832.1, 11.9, 11.9, 0.0); (585255.5, 4135845.9, 11.9, 11.9, 0.0);

```
    ( 585276.1, 4135845.9,      11.9,      11.9,       0.0);        ( 585296.8, 4135845.9,      11.9,      11.9,       0.0);
    ( 585317.4, 4135845.9,      11.9,      11.9,       0.0);        ( 585338.1, 4135845.9,      11.9,      11.9,       0.0);
    ( 585358.7, 4135845.9,      11.9,      11.9,       0.0);        ( 585379.4, 4135845.9,      11.9,      11.9,       0.0);
    ( 585400.0, 4135845.9,      11.9,      11.9,       0.0);        ( 585420.7, 4135845.9,      11.9,      11.9,       0.0);
    ( 585441.3, 4135845.9,      11.9,      11.9,       0.0);        ( 585462.0, 4135845.9,      11.9,      11.9,       0.0);
    ( 585482.6, 4135845.9,      11.9,      11.9,       0.0);        ( 585503.2, 4135845.9,      11.9,      11.9,       0.0);
    ( 585523.9, 4135845.9,      11.9,      11.9,       0.0);        ( 585544.6, 4135845.9,      11.9,      11.9,       0.0);
    ( 585565.2, 4135845.9,      11.9,      11.9,       0.0);        ( 585585.9, 4135845.9,      11.9,      11.9,       0.0);
    ( 585606.5, 4135845.9,      11.9,      11.9,       0.0);        ( 585627.2, 4135845.9,      11.9,      11.9,       0.0);
    ( 585647.8, 4135845.9,      11.9,      11.9,       0.0);        ( 585668.5, 4135845.9,      11.9,      11.9,       0.0);
```


**MODELOPTs: NonDFAULT CONC FLAT URBAN

* SOURCE-RECEPTOR COMBINATIONS FOR WHICH CALCULATIONS MAY NOT BE PERFORMED *
LESS THAN 1.0 METER; WITHIN OPENPIT; OR BEYOND 80KM FOR FASTAREA/FASTALL

SOURCE ID	- - RECEPTOR LOCATION - - XR (METERS)	YR (METERS)	DISTANCE (METERS)
L0000004	585668.5	4135818.4	-8.70
L0000004	585647.8	4135832.1	-1.37
L0000004	585668.5	4135832.1	-19.21
L0000004	585647.8	4135845.9	-4.51
L0000004	585668.5	4135845.9	-25.07
L0000005	585668.5	4135763.4	0.96
L0000005	585668.5	4135777.1	-10.88
L0000005	585647.8	4135790.9	-1.85
L0000005	585668.5	4135790.9	-20.57
L0000005	585647.8	4135804.6	-3.97
L0000005	585668.5	4135804.6	-24.62
L0000005	585647.8	4135818.4	-1.54
L0000005	585668.5	4135818.4	-20.02
L0000005	585668.5	4135832.1	-10.10
L0000006	585668.5	4135722.1	-2.11
L0000006	585647.8	4135735.9	0.23
L0000006	585668.5	4135735.9	-14.37
L0000006	585647.8	4135749.6	-5.88
L0000006	585668.5	4135749.6	-24.57
L0000006	585647.8	4135763.4	-7.59
L0000006	585668.5	4135763.4	-28.15
L0000006	585647.8	4135777.1	-4.34
L0000006	585668.5	4135777.1	-21.72
L0000006	585668.5	4135790.9	-10.57

**MODELOPTs: NonDFAULT CONC FLAT URBAN

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

```
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
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NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

**MODELOPTs: NonDFAULT CONC FLAT URBAN

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: ..\Met Data\745090.SFC Met Version: 14134
Profile file: ..\Met Data\745090.PFL
Surface format: FREE
Profile format: FREE
Surface station no.: 23244 Upper air station no.: 23230
Name: UNKNOWN Name: OAKLAND/WSO_AP
Year: 2009 Year: 2009

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
09	01	01	1	01	-12.1	0.213	-9.000	-9.000	-999.	236.	72.6	0.09	0.54	1.00	2.86	1.	10.0	282.5	2.0
09	01	01	1	02	-14.9	0.261	-9.000	-9.000	-999.	321.	109.2	0.09	0.54	1.00	3.36	18.	10.0	282.0	2.0
09	01	01	1	03	-9.1	0.160	-9.000	-9.000	-999.	158.	40.7	0.09	0.54	1.00	2.36	24.	10.0	282.0	2.0
09	01	01	1	04	-999.0	-9.000	-9.000	-999.	-999.	-99999.0	0.24	0.54	1.00	0.00	0.	10.0	281.4	2.0
09	01	01	1	05	-3.9	0.075	-9.000	-9.000	-999.	49.	9.8	0.09	0.54	1.00	1.76	23.	10.0	281.4	2.0
09	01	01	1	06	-9.1	0.159	-9.000	-9.000	-999.	153.	40.5	0.09	0.54	1.00	2.36	2.	10.0	280.9	2.0
09	01	01	1	07	-9.1	0.159	-9.000	-9.000	-999.	153.	40.5	0.09	0.54	1.00	2.36	15.	10.0	280.9	2.0
09	01	01	1	08	-4.7	0.084	-9.000	-9.000	-999.	61.	11.7	0.15	0.54	0.73	1.76	323.	10.0	280.9	2.0
09	01	01	1	09	-4.9	0.212	-9.000	-9.000	-999.	234.	179.0	0.15	0.54	0.38	2.36	357.	10.0	280.4	2.0
09	01	01	1	10	5.7	0.163	0.241	0.014	89.	159.	-69.3	0.09	0.54	0.25	1.76	11.	10.0	280.9	2.0
09	01	01	1	11	12.2	-9.000	-9.000	-9.000	158.	-999.	-99999.0	0.24	0.54	0.21	0.00	0.	10.0	280.9	2.0
09	01	01	1	12	16.0	0.426	0.456	0.016	216.	668.	-442.4	0.15	0.54	0.19	4.36	346.	10.0	281.4	2.0
09	01	01	1	13	16.6	0.236	0.493	0.015	263.	305.	-71.8	0.36	0.54	0.19	1.76	253.	10.0	281.4	2.0
09	01	01	1	14	14.2	-9.000	-9.000	-9.000	297.	-999.	-99999.0	0.24	0.54	0.20	0.00	0.	10.0	282.0	2.0
09	01	01	1	15	44.9	-9.000	-9.000	-9.000	387.	-999.	-99999.0	0.24	0.54	0.23	0.00	0.	10.0	283.8	2.0
09	01	01	1	16	13.2	-9.000	-9.000	-9.000	410.	-999.	-99999.0	0.24	0.54	0.31	0.00	0.	10.0	284.1	2.0
09	01	01	1	17	-12.3	0.130	-9.000	-9.000	-999.	112.	16.2	0.15	0.54	0.55	2.36	351.	10.0	282.1	2.0
09	01	01	1	18	-9.3	0.106	-9.000	-9.000	-999.	83.	11.6	0.36	0.54	1.00	1.76	297.	10.0	282.1	2.0
09	01	01	1	19	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.24	0.54	1.00	0.00	0.	10.0	281.1	2.0
09	01	01	1	20	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.24	0.54	1.00	0.00	0.	10.0	281.1	2.0
09	01	01	1	21	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.24	0.54	1.00	0.00	0.	10.0	281.1	2.0
09	01	01	1	22	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.24	0.54	1.00	0.00	0.	10.0	281.1	2.0
09	01	01	1	23	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.24	0.54	1.00	0.00	0.	10.0	281.1	2.0
09	01	01	1	24	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.24	0.54	1.00	0.00	0.	10.0	280.1	2.0

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
09	01	01	01	10.0	1	1.	2.86	282.6	99.0	-99.00	-99.00

F indicates top of profile (=1) or below (=0)

**MODELOPTs: NonDFAULT CONC FLAT URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , AREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
585079.42	4135987.04	0.00371	(10022522)	585101.42	4135987.04	0.00392	(10022522)
585123.42	4135987.04	0.00416	(10022522)	585145.42	4135987.04	0.00442	(10022522)
585167.42	4135987.04	0.00470	(10022522)	585189.42	4135987.04	0.00501	(10022522)
585211.42	4135987.04	0.00536	(10022522)	585233.42	4135987.04	0.00573	(10022522)
585255.42	4135987.04	0.00615	(10022522)	585277.42	4135987.04	0.00666	(11011919)
585299.42	4135987.04	0.00732	(11011919)	585321.42	4135987.04	0.00806	(11011919)
585343.42	4135987.04	0.00890	(11011919)	585365.42	4135987.04	0.00986	(11011919)
585387.42	4135987.04	0.01094	(11011919)	585409.42	4135987.04	0.01239	(09022822)
585431.42	4135987.04	0.01436	(09022822)	585453.42	4135987.04	0.01662	(09022822)
585475.42	4135987.04	0.01942	(10020102)	585497.42	4135987.04	0.02345	(10120221)
585519.42	4135987.04	0.02856	(11121222)	585079.42	4136000.51	0.00369	(10022522)
585101.42	4136000.51	0.00390	(10022522)	585123.42	4136000.51	0.00411	(10022522)
585145.42	4136000.51	0.00433	(10022522)	585167.42	4136000.51	0.00459	(10022522)
585189.42	4136000.51	0.00491	(11011919)	585211.42	4136000.51	0.00530	(11011919)
585233.42	4136000.51	0.00572	(11011919)	585255.42	4136000.51	0.00618	(11011919)
585277.42	4136000.51	0.00670	(11011919)	585299.42	4136000.51	0.00727	(11011919)
585321.42	4136000.51	0.00788	(11011919)	585343.42	4136000.51	0.00862	(09022822)
585365.42	4136000.51	0.00971	(09022822)	585387.42	4136000.51	0.01093	(09022822)
585409.42	4136000.51	0.01226	(09022822)	585431.42	4136000.51	0.01387	(10020102)
585453.42	4136000.51	0.01611	(10120221)	585475.42	4136000.51	0.01876	(12012420)
585497.42	4136000.51	0.02223	(12122219)	585519.42	4136000.51	0.02771	(12010318)
585079.42	4136013.98	0.00360	(11011919)	585101.42	4136013.98	0.00383	(11011919)
585123.42	4136013.98	0.00408	(11011919)	585145.42	4136013.98	0.00435	(11011919)
585167.42	4136013.98	0.00464	(11011919)	585189.42	4136013.98	0.00495	(11011919)
585211.42	4136013.98	0.00529	(11011919)	585233.42	4136013.98	0.00566	(11011919)
585255.42	4136013.98	0.00605	(11011919)	585277.42	4136013.98	0.00646	(09022822)
585299.42	4136013.98	0.00714	(09022822)	585321.42	4136013.98	0.00789	(09022822)
585343.42	4136013.98	0.00869	(09022822)	585365.42	4136013.98	0.00955	(09022822)
585387.42	4136013.98	0.01058	(10020102)	585409.42	4136013.98	0.01196	(10120221)
585431.42	4136013.98	0.01354	(11120808)	585453.42	4136013.98	0.01537	(12012420)
585475.42	4136013.98	0.01791	(11121020)	585497.42	4136013.98	0.02172	(12010318)
585519.42	4136013.98	0.02622	(10120502)	585079.42	4136027.45	0.00366	(11011919)
585101.42	4136027.45	0.00387	(11011919)	585123.42	4136027.45	0.00409	(11011919)
585145.42	4136027.45	0.00433	(11011919)	585167.42	4136027.45	0.00458	(11011919)
585189.42	4136027.45	0.00484	(11011919)	585211.42	4136027.45	0.00511	(11011919)
585233.42	4136027.45	0.00554	(09022822)	585255.42	4136027.45	0.00604	(09022822)
585277.42	4136027.45	0.00658	(09022822)	585299.42	4136027.45	0.00714	(09022822)
585321.42	4136027.45	0.00773	(09022822)	585343.42	4136027.45	0.00844	(10020102)
585365.42	4136027.45	0.00935	(10120221)	585387.42	4136027.45	0.01041	(10120221)
585409.42	4136027.45	0.01161	(12012420)	585431.42	4136027.45	0.01300	(11121222)

**MODELOPTs: NonDFAULT CONC FLAT URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , AREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
585453.42	4136027.45	0.01487	(11121020)	585475.42	4136027.45	0.01765	(12010318)
585497.42	4136027.45	0.02086	(10120502)	585519.42	4136027.45	0.02420	(11010306)
585079.42	4136040.92	0.00363	(11011919)	585101.42	4136040.92	0.00381	(11011919)
585123.42	4136040.92	0.00400	(11011919)	585145.42	4136040.92	0.00419	(11011919)
585167.42	4136040.92	0.00447	(09022822)	585189.42	4136040.92	0.00482	(09022822)
585211.42	4136040.92	0.00520	(09022822)	585233.42	4136040.92	0.00560	(09022822)
585255.42	4136040.92	0.00601	(09022822)	585277.42	4136040.92	0.00643	(09022822)

585299.42	4136040.92	0.00695	(10020102)	585321.42	4136040.92	0.00757	(10120221)
585343.42	4136040.92	0.00834	(10120221)	585365.42	4136040.92	0.00915	(11120808)
585387.42	4136040.92	0.01006	(12012420)	585409.42	4136040.92	0.01122	(12122219)
585431.42	4136040.92	0.01266	(11012203)	585453.42	4136040.92	0.01474	(12010318)
585475.42	4136040.92	0.01713	(10120502)	585497.42	4136040.92	0.01935	(11010306)
585519.42	4136040.92	0.02203	(10020405)	585079.42	4136054.39	0.00352	(11011919)
585101.42	4136054.39	0.00370	(09022822)	585123.42	4136054.39	0.00397	(09022822)
585145.42	4136054.39	0.00425	(09022822)	585167.42	4136054.39	0.00454	(09022822)
585189.42	4136054.39	0.00484	(09022822)	585211.42	4136054.39	0.00515	(09022822)
585233.42	4136054.39	0.00546	(09022822)	585255.42	4136054.39	0.00586	(10020102)
585277.42	4136054.39	0.00632	(10020102)	585299.42	4136054.39	0.00689	(10120221)
585321.42	4136054.39	0.00747	(11120808)	585343.42	4136054.39	0.00814	(12012420)
585365.42	4136054.39	0.00883	(11121222)	585387.42	4136054.39	0.00982	(12122219)
585409.42	4136054.39	0.01099	(11012203)	585431.42	4136054.39	0.01256	(10120502)
585453.42	4136054.39	0.01441	(10120502)	585475.42	4136054.39	0.01586	(11010306)
585497.42	4136054.39	0.01794	(10020405)	585519.42	4136054.39	0.02044	(11022108)
585079.42	4136067.86	0.00355	(09022822)	585101.42	4136067.86	0.00378	(09022822)
585123.42	4136067.86	0.00401	(09022822)	585145.42	4136067.86	0.00425	(09022822)
585167.42	4136067.86	0.00449	(09022822)	585189.42	4136067.86	0.00472	(09022822)
585211.42	4136067.86	0.00504	(10020102)	585233.42	4136067.86	0.00539	(10020102)
585255.42	4136067.86	0.00582	(10120221)	585277.42	4136067.86	0.00627	(10120221)
585299.42	4136067.86	0.00674	(12012420)	585321.42	4136067.86	0.00728	(12012420)
585343.42	4136067.86	0.00790	(11121222)	585365.42	4136067.86	0.00867	(12122219)
585387.42	4136067.86	0.00966	(11012203)	585409.42	4136067.86	0.01089	(10120502)
585431.42	4136067.86	0.01235	(10120502)	585453.42	4136067.86	0.01340	(12020823)
585475.42	4136067.86	0.01513	(11010306)	585497.42	4136067.86	0.01691	(09013107)
585519.42	4136067.86	0.01876	(10120722)	585079.42	4136081.33	0.00358	(09022822)
585101.42	4136081.33	0.00377	(09022822)	585123.42	4136081.33	0.00396	(09022822)
585145.42	4136081.33	0.00415	(12121102)	585167.42	4136081.33	0.00440	(10020102)
585189.42	4136081.33	0.00468	(10020102)	585211.42	4136081.33	0.00500	(10120221)
585233.42	4136081.33	0.00536	(10120221)	585255.42	4136081.33	0.00572	(11120808)
585277.42	4136081.33	0.00614	(12012420)	585299.42	4136081.33	0.00654	(12012420)
585321.42	4136081.33	0.00711	(12122219)	585343.42	4136081.33	0.00775	(11121020)

□*** AERMOD - VERSION 15181 *** *** H:\pdata\149354\Environmental\Technical Studies\HRA\AERMOD\Oppidan\O *** 11/16/15
*** AERMET - VERSION 14134 *** *** *** 16:32:45
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**MODELOPTs: NonDFAULT CONC FLAT URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , AREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
585365.42	4136081.33	0.00858	(11012203)	585387.42	4136081.33	0.00957	(10120502)
585409.42	4136081.33	0.01075	(10120502)	585431.42	4136081.33	0.01155	(12020823)
585453.42	4136081.33	0.01294	(11010306)	585475.42	4136081.33	0.01412	(10020405)
585497.42	4136081.33	0.01574	(12021908)	585519.42	4136081.33	0.01754	(10022707)
585079.42	4136094.80	0.00353	(09022822)	585101.42	4136094.80	0.00368	(12121102)
585123.42	4136094.80	0.00388	(10020102)	585145.42	4136094.80	0.00411	(10020102)
585167.42	4136094.80	0.00436	(10120221)	585189.42	4136094.80	0.00465	(10120221)
585211.42	4136094.80	0.00494	(10120221)	585233.42	4136094.80	0.00526	(12012420)
585255.42	4136094.80	0.00560	(12012420)	585277.42	4136094.80	0.00597	(11121222)
585299.42	4136094.80	0.00646	(12122219)	585321.42	4136094.80	0.00698	(11121020)
585343.42	4136094.80	0.00770	(11012203)	585365.42	4136094.80	0.00850	(10120502)
585387.42	4136094.80	0.00947	(10120502)	585409.42	4136094.80	0.01008	(12020823)
585431.42	4136094.80	0.01119	(11010306)	585453.42	4136094.80	0.01214	(10020405)
585475.42	4136094.80	0.01347	(09013107)	585497.42	4136094.80	0.01463	(10120722)
585519.42	4136094.80	0.01633	(10022307)	585079.42	4136108.27	0.00347	(10020102)
585101.42	4136108.27	0.00365	(10020102)	585123.42	4136108.27	0.00385	(10120221)
585145.42	4136108.27	0.00409	(10120221)	585167.42	4136108.27	0.00433	(10120221)
585189.42	4136108.27	0.00458	(11120808)	585211.42	4136108.27	0.00486	(12012420)

585233.42	4136108.27	0.00513	(12012420)	585255.42	4136108.27	0.00548	(11121222)
585277.42	4136108.27	0.00590	(12122219)	585299.42	4136108.27	0.00632	(11121020)
585321.42	4136108.27	0.00695	(11012203)	585343.42	4136108.27	0.00762	(10120502)
585365.42	4136108.27	0.00844	(10120502)	585387.42	4136108.27	0.00896	(10120502)
585409.42	4136108.27	0.00977	(11010306)	585431.42	4136108.27	0.01060	(11010306)
585453.42	4136108.27	0.01159	(09013107)	585475.42	4136108.27	0.01262	(12021908)
585497.42	4136108.27	0.01384	(10022707)	585519.42	4136108.27	0.01516	(09020524)
585079.42	4136121.74	0.00343	(10020102)	585101.42	4136121.74	0.00364	(10120221)
585123.42	4136121.74	0.00384	(10120221)	585145.42	4136121.74	0.00404	(11120808)
585167.42	4136121.74	0.00426	(12012420)	585189.42	4136121.74	0.00450	(12012420)
585211.42	4136121.74	0.00472	(11121222)	585233.42	4136121.74	0.00505	(11121222)
585255.42	4136121.74	0.00541	(12122219)	585277.42	4136121.74	0.00577	(11121020)
585299.42	4136121.74	0.00633	(11012203)	585321.42	4136121.74	0.00689	(10120502)
585343.42	4136121.74	0.00758	(10120502)	585365.42	4136121.74	0.00804	(10120502)
585387.42	4136121.74	0.00861	(10122420)	585409.42	4136121.74	0.00943	(11010306)
585431.42	4136121.74	0.01009	(10020405)	585453.42	4136121.74	0.01102	(11022108)
585475.42	4136121.74	0.01184	(10120722)	585497.42	4136121.74	0.01302	(10022307)
585519.42	4136121.74	0.01395	(09020524)	585079.42	4136135.21	0.00343	(10120221)
585101.42	4136135.21	0.00360	(10120221)	585123.42	4136135.21	0.00378	(11120808)
585145.42	4136135.21	0.00398	(12012420)	585167.42	4136135.21	0.00417	(12012420)
585189.42	4136135.21	0.00440	(11121222)	585211.42	4136135.21	0.00469	(12122219)
585233.42	4136135.21	0.00498	(11121020)	585255.42	4136135.21	0.00532	(11012203)

**MODELOPTs: NonDFAULT CONC FLAT URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , AREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***
** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
585277.42	4136135.21	0.00579	(11012203)	585299.42	4136135.21	0.00627	(10120502)
585321.42	4136135.21	0.00687	(10120502)	585343.42	4136135.21	0.00727	(10120502)
585365.42	4136135.21	0.00771	(10122420)	585387.42	4136135.21	0.00842	(11010306)
585409.42	4136135.21	0.00896	(10020405)	585431.42	4136135.21	0.00975	(09013107)
585453.42	4136135.21	0.01041	(12021908)	585475.42	4136135.21	0.01130	(10022707)
585497.42	4136135.21	0.01224	(10022307)	585519.42	4136135.21	0.01286	(13010507)
585079.42	4136148.68	0.00339	(11120808)	585101.42	4136148.68	0.00355	(12012420)
585123.42	4136148.68	0.00372	(12012420)	585145.42	4136148.68	0.00387	(12012420)
585167.42	4136148.68	0.00411	(11121222)	585189.42	4136148.68	0.00436	(12122219)
585211.42	4136148.68	0.00462	(11121020)	585233.42	4136148.68	0.00492	(11012203)
585255.42	4136148.68	0.00533	(11012203)	585277.42	4136148.68	0.00574	(10120502)
585299.42	4136148.68	0.00626	(10120502)	585321.42	4136148.68	0.00662	(10120502)
585343.42	4136148.68	0.00696	(12020823)	585365.42	4136148.68	0.00756	(11010306)
585387.42	4136148.68	0.00798	(10020405)	585409.42	4136148.68	0.00861	(09013107)
585431.42	4136148.68	0.00926	(11022108)	585453.42	4136148.68	0.00985	(10120722)
585475.42	4136148.68	0.01074	(10022707)	585497.42	4136148.68	0.01152	(09020524)
585519.42	4136148.68	0.01213	(13010507)	585079.42	4136162.15	0.00334	(12012420)
585101.42	4136162.15	0.00348	(12012420)	585123.42	4136162.15	0.00364	(11121222)
585145.42	4136162.15	0.00385	(11121222)	585167.42	4136162.15	0.00407	(12122219)
585189.42	4136162.15	0.00429	(11121020)	585211.42	4136162.15	0.00458	(11012203)
585233.42	4136162.15	0.00493	(12010318)	585255.42	4136162.15	0.00528	(10120502)
585277.42	4136162.15	0.00574	(10120502)	585299.42	4136162.15	0.00606	(10120502)
585321.42	4136162.15	0.00634	(12020823)	585343.42	4136162.15	0.00683	(11010306)
585365.42	4136162.15	0.00726	(11010306)	585387.42	4136162.15	0.00770	(10020405)
585409.42	4136162.15	0.00832	(09013107)	585431.42	4136162.15	0.00879	(10120722)
585453.42	4136162.15	0.00946	(10022707)	585475.42	4136162.15	0.01021	(10022307)
585497.42	4136162.15	0.01065	(09020524)	585519.42	4136162.15	0.01137	(09120506)
585079.42	4136175.62	0.00326	(12012420)	585101.42	4136175.62	0.00343	(11121222)
585123.42	4136175.62	0.00362	(12122219)	585145.42	4136175.62	0.00381	(12122219)

585167.42	4136175.62	0.00401	(11121020)	585189.42	4136175.62	0.00427	(11012203)
585211.42	4136175.62	0.00458	(12010318)	585233.42	4136175.62	0.00489	(09022823)
585255.42	4136175.62	0.00529	(10120502)	585277.42	4136175.62	0.00558	(10120502)
585299.42	4136175.62	0.00580	(12020823)	585321.42	4136175.62	0.00619	(11010306)
585343.42	4136175.62	0.00663	(11010306)	585365.42	4136175.62	0.00698	(10020405)
585387.42	4136175.62	0.00749	(09013107)	585409.42	4136175.62	0.00795	(12021908)
585431.42	4136175.62	0.00838	(10120722)	585453.42	4136175.62	0.00908	(10022707)
585475.42	4136175.62	0.00968	(09020524)	585497.42	4136175.62	0.01003	(13010507)
585519.42	4136175.62	0.01055	(09120506)	585079.42	4136189.09	0.00324	(11121222)
585101.42	4136189.09	0.00341	(12122219)	585123.42	4136189.09	0.00357	(11121020)
585145.42	4136189.09	0.00375	(11121020)	585167.42	4136189.09	0.00400	(11012203)

**MODELOPTs: NonDFAULT CONC FLAT URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , AREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
585189.42	4136189.09	0.00427	(12010318)	585211.42	4136189.09	0.00454	(09022823)
585233.42	4136189.09	0.00489	(10120502)	585255.42	4136189.09	0.00515	(10120502)
585277.42	4136189.09	0.00533	(12020823)	585299.42	4136189.09	0.00565	(10122420)
585321.42	4136189.09	0.00607	(11010306)	585343.42	4136189.09	0.00634	(10020405)
585365.42	4136189.09	0.00673	(09013107)	585387.42	4136189.09	0.00720	(09013107)
585409.42	4136189.09	0.00758	(10120722)	585431.42	4136189.09	0.00809	(10022707)
585453.42	4136189.09	0.00868	(10022307)	585475.42	4136189.09	0.00913	(09020524)
585497.42	4136189.09	0.00956	(13010507)	585519.42	4136189.09	0.00985	(12022701)
585079.42	4136202.56	0.00322	(12122219)	585101.42	4136202.56	0.00336	(11121020)
585123.42	4136202.56	0.00352	(11121020)	585145.42	4136202.56	0.00376	(11012203)
585167.42	4136202.56	0.00399	(12010318)	585189.42	4136202.56	0.00423	(09022823)
585211.42	4136202.56	0.00455	(10120502)	585233.42	4136202.56	0.00479	(10120502)
585255.42	4136202.56	0.00492	(12020823)	585277.42	4136202.56	0.00520	(10122420)
585299.42	4136202.56	0.00558	(11010306)	585321.42	4136202.56	0.00582	(11010306)
585343.42	4136202.56	0.00615	(10020405)	585365.42	4136202.56	0.00658	(09013107)
585387.42	4136202.56	0.00692	(12021908)	585409.42	4136202.56	0.00725	(10120722)
585431.42	4136202.56	0.00782	(10022707)	585453.42	4136202.56	0.00825	(09020524)
585475.42	4136202.56	0.00850	(12010207)	585497.42	4136202.56	0.00906	(09120506)
585519.42	4136202.56	0.00942	(12022701)	585079.42	4136216.03	0.00318	(11121020)
585101.42	4136216.03	0.00331	(11123124)	585123.42	4136216.03	0.00354	(11012203)
585145.42	4136216.03	0.00375	(12010318)	585167.42	4136216.03	0.00396	(09022823)
585189.42	4136216.03	0.00424	(10120502)	585211.42	4136216.03	0.00446	(10120502)
585233.42	4136216.03	0.00457	(10120502)	585255.42	4136216.03	0.00482	(10122420)
585277.42	4136216.03	0.00514	(11010306)	585299.42	4136216.03	0.00540	(11010306)
585321.42	4136216.03	0.00566	(10020405)	585343.42	4136216.03	0.00600	(09013107)
585365.42	4136216.03	0.00633	(11022108)	585387.42	4136216.03	0.00664	(10120722)
585409.42	4136216.03	0.00702	(10022707)	585431.42	4136216.03	0.00750	(10022307)
585453.42	4136216.03	0.00790	(09020524)	585475.42	4136216.03	0.00813	(13010507)
585497.42	4136216.03	0.00853	(09120506)	585519.42	4136216.03	0.00894	(12022701)
585079.42	4136229.50	0.00313	(11012203)	585101.42	4136229.50	0.00334	(11012203)
585123.42	4136229.50	0.00353	(12010318)	585145.42	4136229.50	0.00372	(09022823)
585167.42	4136229.50	0.00397	(10120502)	585189.42	4136229.50	0.00417	(10120502)
585211.42	4136229.50	0.00428	(10120502)	585233.42	4136229.50	0.00448	(12020823)
585255.42	4136229.50	0.00475	(11010306)	585277.42	4136229.50	0.00502	(11010306)
585299.42	4136229.50	0.00521	(10020405)	585321.42	4136229.50	0.00546	(09013107)
585343.42	4136229.50	0.00583	(09013107)	585365.42	4136229.50	0.00609	(12021908)
585387.42	4136229.50	0.00635	(10120722)	585409.42	4136229.50	0.00683	(10022707)
585431.42	4136229.50	0.00719	(10022307)	585453.42	4136229.50	0.00746	(09020524)
585475.42	4136229.50	0.00781	(13010507)	585497.42	4136229.50	0.00796	(09120506)
585519.42	4136229.50	0.00843	(12022701)	585079.42	4136242.97	0.00316	(11012203)

 **MODELOPTs: NonDFAULT CONC   FLAT   URBAN

                          *** THE   1ST HIGHEST 1-HR AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP: ALL   ***
                              INCLUDING SOURCE(S):   L0000001   , L0000002   , L0000003   , L0000004   , L0000005   ,
              L0000006   , AREA1   ,

                                   *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                  ** CONC OF PM_2.5   IN MICROGRAMS/M**3   **

     X-COORD (M) Y-COORD (M)   CONC   (YYMMDDHH)   X-COORD (M) Y-COORD (M)   CONC   (YYMMDDHH)
- -
       585101.42   4136242.97   0.00333 (12010318)   585123.42   4136242.97   0.00350 (09022823)
       585145.42   4136242.97   0.00373 (10120502)   585167.42   4136242.97   0.00391 (10120502)
       585189.42   4136242.97   0.00402 (10120502)   585211.42   4136242.97   0.00418 (12020823)
       585233.42   4136242.97   0.00440 (11010306)   585255.42   4136242.97   0.00466 (11010306)
       585277.42   4136242.97   0.00480 (10020405)   585299.42   4136242.97   0.00506 (10020405)
       585321.42   4136242.97   0.00538 (09013107)   585343.42   4136242.97   0.00562 (12021908)
       585365.42   4136242.97   0.00587 (10120722)   585387.42   4136242.97   0.00617 (10022707)
       585409.42   4136242.97   0.00656 (10022307)   585431.42   4136242.97   0.00690 (09020524)
       585453.42   4136242.97   0.00702 (12010207)   585475.42   4136242.97   0.00745 (09120506)
       585497.42   4136242.97   0.00763 (12022701)   585519.42   4136242.97   0.00797 (09120504)
       585079.42   4136256.44   0.00315 (12010318)   585101.42   4136256.44   0.00330 (09022823)
       585123.42   4136256.44   0.00351 (10120502)   585145.42   4136256.44   0.00367 (10120502)
       585167.42   4136256.44   0.00378 (10120502)   585189.42   4136256.44   0.00391 (12020823)
       585211.42   4136256.44   0.00409 (10122420)   585233.42   4136256.44   0.00435 (11010306)
       585255.42   4136256.44   0.00451 (11010306)   585277.42   4136256.44   0.00471 (10020405)
       585299.42   4136256.44   0.00495 (09013107)   585321.42   4136256.44   0.00521 (09013107)
       585343.42   4136256.44   0.00542 (12021908)   585365.42   4136256.44   0.00564 (10120722)
       585387.42   4136256.44   0.00603 (10022707)   585409.42   4136256.44   0.00634 (10022307)
       585431.42   4136256.44   0.00660 (09020524)   585453.42   4136256.44   0.00677 (13010507)
       585475.42   4136256.44   0.00709 (09120506)   585497.42   4136256.44   0.00734 (12022701)
       585519.42   4136256.44   0.00762 (09120504)   585255.45   4135570.88   0.00552 (10121702)
       585276.10   4135570.88   0.00577 (10121702)   585296.75   4135570.88   0.00581 (09022405)
       585317.40   4135570.88   0.00581 (13121607)   585338.05   4135570.88   0.00623 (13121607)
       585358.70   4135570.88   0.00655 (11122717)   585379.35   4135570.88   0.00679 (11121208)
       585400.00   4135570.88   0.00724 (11121208)   585420.65   4135570.88   0.00720 (10022821)
       585441.30   4135570.88   0.00743 (10022821)   585461.95   4135570.88   0.00765 (09010105)
       585482.60   4135570.88   0.00816 (09010105)   585503.25   4135570.88   0.00804 (12021920)
       585523.90   4135570.88   0.00862 (11012821)   585544.55   4135570.88   0.00871 (09012318)
       585565.20   4135570.88   0.00878 (09022718)   585585.85   4135570.88   0.00907 (11011321)
       585606.50   4135570.88   0.00912 (10022205)   585627.15   4135570.88   0.00925 (10121101)
       585647.80   4135570.88   0.00849 (10121101)   585668.45   4135570.88   0.00774 (09121005)
       585255.45   4135584.63   0.00547 (10121702)   585276.10   4135584.63   0.00593 (10121702)
       585296.75   4135584.63   0.00610 (10121702)   585317.40   4135584.63   0.00608 (09022405)
       585338.05   4135584.63   0.00636 (13121607)   585358.70   4135584.63   0.00662 (13121607)
       585379.35   4135584.63   0.00709 (11122717)   585400.00   4135584.63   0.00750 (11121208)
       585420.65   4135584.63   0.00758 (11121208)   585441.30   4135584.63   0.00783 (10022821)
       585461.95   4135584.63   0.00771 (10042124)   585482.60   4135584.63   0.00855 (09010105)
       585503.25   4135584.63   0.00843 (12021920)   585523.90   4135584.63   0.00904 (11012821)
       585544.55   4135584.63   0.00923 (09012318)   585565.20   4135584.63   0.00925 (09022718)
       585585.85   4135584.63   0.00956 (11011321)   585606.50   4135584.63   0.00959 (10022205)

 **MODELOPTs: NonDFAULT CONC   FLAT   URBAN

                          *** THE   1ST HIGHEST 1-HR AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP: ALL   ***
                              INCLUDING SOURCE(S):   L0000001   , L0000002   , L0000003   , L0000004   , L0000005   ,
              L0000006   , AREA1   ,

                                   *** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
585627.15	4135584.63	0.00974	(10121101)	585647.80	4135584.63	0.00892	(10121101)
585668.45	4135584.63	0.00814	(09121005)	585255.45	4135598.38	0.00567	(09122722)
585276.10	4135598.38	0.00595	(10121702)	585296.75	4135598.38	0.00636	(10121702)
585317.40	4135598.38	0.00646	(09022405)	585338.05	4135598.38	0.00637	(13121607)
585358.70	4135598.38	0.00690	(13121607)	585379.35	4135598.38	0.00729	(11122717)
585400.00	4135598.38	0.00763	(11121208)	585420.65	4135598.38	0.00807	(11121208)
585441.30	4135598.38	0.00815	(10022821)	585461.95	4135598.38	0.00818	(10022821)
585482.60	4135598.38	0.00887	(09010105)	585503.25	4135598.38	0.00894	(09010105)
585523.90	4135598.38	0.00943	(11012821)	585544.55	4135598.38	0.00976	(09012318)
585565.20	4135598.38	0.00973	(09022718)	585585.85	4135598.38	0.01009	(11011321)
585606.50	4135598.38	0.01011	(11122704)	585627.15	4135598.38	0.01028	(10121101)
585647.80	4135598.38	0.00939	(10121101)	585668.45	4135598.38	0.00861	(09010705)
585255.45	4135612.13	0.00598	(09122722)	585276.10	4135612.13	0.00598	(09122722)
585296.75	4135612.13	0.00647	(10121702)	585317.40	4135612.13	0.00680	(10121702)
585338.05	4135612.13	0.00684	(09022405)	585358.70	4135612.13	0.00704	(13121607)
585379.35	4135612.13	0.00740	(13121607)	585400.00	4135612.13	0.00794	(11122717)
585420.65	4135612.13	0.00844	(11121208)	585441.30	4135612.13	0.00839	(11121208)
585461.95	4135612.13	0.00876	(10022821)	585482.60	4135612.13	0.00910	(09010105)
585503.25	4135612.13	0.00958	(09010105)	585523.90	4135612.13	0.00979	(11012821)
585544.55	4135612.13	0.01028	(09012318)	585565.20	4135612.13	0.01022	(09022718)
585585.85	4135612.13	0.01065	(11011321)	585606.50	4135612.13	0.01071	(11122704)
585627.15	4135612.13	0.01087	(10121101)	585647.80	4135612.13	0.00990	(10121101)
585668.45	4135612.13	0.00914	(09010705)	585255.45	4135625.88	0.00612	(09122722)
585276.10	4135625.88	0.00637	(09122722)	585296.75	4135625.88	0.00639	(10121702)
585317.40	4135625.88	0.00702	(10121702)	585338.05	4135625.88	0.00724	(10121702)
585358.70	4135625.88	0.00718	(09022405)	585379.35	4135625.88	0.00772	(13121607)
585400.00	4135625.88	0.00819	(11122717)	585420.65	4135625.88	0.00865	(11121208)
585441.30	4135625.88	0.00905	(11121208)	585461.95	4135625.88	0.00926	(10022821)
585482.60	4135625.88	0.00921	(09010105)	585503.25	4135625.88	0.01017	(09010105)
585523.90	4135625.88	0.01008	(11012821)	585544.55	4135625.88	0.01079	(09012318)
585565.20	4135625.88	0.01073	(09022718)	585585.85	4135625.88	0.01124	(11011321)
585606.50	4135625.88	0.01134	(11122704)	585627.15	4135625.88	0.01152	(10121101)
585647.80	4135625.88	0.01045	(10121101)	585668.45	4135625.88	0.00971	(09010705)
585255.45	4135639.63	0.00608	(09122722)	585276.10	4135639.63	0.00659	(09122722)
585296.75	4135639.63	0.00680	(09122722)	585317.40	4135639.63	0.00703	(10121702)
585338.05	4135639.63	0.00760	(10121702)	585358.70	4135639.63	0.00773	(09022405)
585379.35	4135639.63	0.00785	(13121607)	585400.00	4135639.63	0.00835	(13121607)
585420.65	4135639.63	0.00897	(11122717)	585441.30	4135639.63	0.00958	(11121208)
585461.95	4135639.63	0.00963	(10022821)	585482.60	4135639.63	0.00979	(10022821)
585503.25	4135639.63	0.01068	(09010105)	585523.90	4135639.63	0.01062	(12021920)

□*** AERMOD - VERSION 15181 *** *** H:\pdata\149354\Environmental\Technical Studies\HRA\AERMOD\Oppidan\O *** 11/16/15
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**MODELOPTs: NonDFAULT CONC FLAT URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , AREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
585544.55	4135639.63	0.01143	(11012821)	585565.20	4135639.63	0.01140	(09012318)
585585.85	4135639.63	0.01188	(11011321)	585606.50	4135639.63	0.01205	(11122704)
585627.15	4135639.63	0.01225	(10121101)	585647.80	4135639.63	0.01106	(10121101)
585668.45	4135639.63	0.01037	(10121104)	585255.45	4135653.38	0.00613	(10091702)
585276.10	4135653.38	0.00660	(09122722)	585296.75	4135653.38	0.00710	(09122722)
585317.40	4135653.38	0.00725	(09122722)	585338.05	4135653.38	0.00774	(10121702)
585358.70	4135653.38	0.00820	(10121702)	585379.35	4135653.38	0.00822	(09022405)

585400.00	4135653.38	0.00871	(13121607)	585420.65	4135653.38	0.00929	(11122717)
585441.30	4135653.38	0.00991	(11121208)	585461.95	4135653.38	0.01023	(11121208)
585482.60	4135653.38	0.01055	(10022821)	585503.25	4135653.38	0.01108	(09010105)
585523.90	4135653.38	0.01142	(09010105)	585544.55	4135653.38	0.01212	(11012821)
585565.20	4135653.38	0.01230	(09012318)	585585.85	4135653.38	0.01255	(11011321)
585606.50	4135653.38	0.01283	(11122704)	585627.15	4135653.38	0.01306	(10121101)
585647.80	4135653.38	0.01173	(10121101)	585668.45	4135653.38	0.01110	(10121104)
585255.45	4135667.13	0.00634	(09020421)	585276.10	4135667.13	0.00660	(10091702)
585296.75	4135667.13	0.00718	(09122722)	585317.40	4135667.13	0.00767	(09122722)
585338.05	4135667.13	0.00773	(09122722)	585358.70	4135667.13	0.00851	(10121702)
585379.35	4135667.13	0.00879	(10121702)	585400.00	4135667.13	0.00883	(13121607)
585420.65	4135667.13	0.00952	(13121607)	585441.30	4135667.13	0.01025	(11122717)
585461.95	4135667.13	0.01098	(11121208)	585482.60	4135667.13	0.01118	(10022821)
585503.25	4135667.13	0.01131	(09010105)	585523.90	4135667.13	0.01235	(09010105)
585544.55	4135667.13	0.01276	(11012821)	585565.20	4135667.13	0.01326	(09012318)
585585.85	4135667.13	0.01325	(11011321)	585606.50	4135667.13	0.01368	(11122704)
585627.15	4135667.13	0.01395	(10121101)	585647.80	4135667.13	0.01249	(10121101)
585668.45	4135667.13	0.01192	(10121104)	585255.45	4135680.88	0.00661	(09020421)
585276.10	4135680.88	0.00682	(09020421)	585296.75	4135680.88	0.00713	(10091702)
585317.40	4135680.88	0.00783	(09122722)	585338.05	4135680.88	0.00830	(09122722)
585358.70	4135680.88	0.00851	(10121702)	585379.35	4135680.88	0.00932	(10121702)
585400.00	4135680.88	0.00949	(09022405)	585420.65	4135680.88	0.00993	(13121607)
585441.30	4135680.88	0.01069	(11122717)	585461.95	4135680.88	0.01150	(11121208)
585482.60	4135680.88	0.01163	(11121208)	585503.25	4135680.88	0.01203	(10022821)
585523.90	4135680.88	0.01319	(09010105)	585544.55	4135680.88	0.01332	(11012821)
585565.20	4135680.88	0.01423	(09012318)	585585.85	4135680.88	0.01425	(09022718)
585606.50	4135680.88	0.01463	(11122704)	585627.15	4135680.88	0.01496	(10121101)
585647.80	4135680.88	0.01333	(10121101)	585668.45	4135680.88	0.01280	(10121104)
585255.45	4135694.63	0.00672	(09122917)	585276.10	4135694.63	0.00713	(09020421)
585296.75	4135694.63	0.00737	(09020421)	585317.40	4135694.63	0.00774	(10091702)
585338.05	4135694.63	0.00858	(09122722)	585358.70	4135694.63	0.00900	(09122722)
585379.35	4135694.63	0.00952	(10121702)	585400.00	4135694.63	0.01018	(10121702)
585420.65	4135694.63	0.01014	(09022405)	585441.30	4135694.63	0.01101	(13121607)

□*** AERMOD - VERSION 15181 *** *** H:\pdata\149354\Environmental\Technical Studies\HRA\AERMOD\Oppidan\O *** 11/16/15
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**MODELOPTs: NonDFAULT CONC FLAT URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , AREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
585461.95	4135694.63	0.01188	(11122717)	585482.60	4135694.63	0.01273	(11121208)
585503.25	4135694.63	0.01307	(10022821)	585523.90	4135694.63	0.01388	(09010105)
585544.55	4135694.63	0.01404	(12021920)	585565.20	4135694.63	0.01520	(09012318)
585585.85	4135694.63	0.01533	(09022718)	585606.50	4135694.63	0.01577	(10121707)
585627.15	4135694.63	0.01611	(10121101)	585647.80	4135694.63	0.01425	(10121101)
585668.45	4135694.63	0.01379	(10121104)	585255.45	4135708.38	0.00684	(09122917)
585276.10	4135708.38	0.00727	(09122917)	585296.75	4135708.38	0.00773	(09020421)
585317.40	4135708.38	0.00800	(09020421)	585338.05	4135708.38	0.00849	(09122722)
585358.70	4135708.38	0.00943	(09122722)	585379.35	4135708.38	0.00976	(09122722)
585400.00	4135708.38	0.01063	(10121702)	585420.65	4135708.38	0.01106	(09022405)
585441.30	4135708.38	0.01148	(13121607)	585461.95	4135708.38	0.01248	(11122717)
585482.60	4135708.38	0.01355	(11121208)	585503.25	4135708.38	0.01389	(10022821)
585523.90	4135708.38	0.01434	(09010105)	585544.55	4135708.38	0.01536	(09010105)
585565.20	4135708.38	0.01631	(11012821)	585585.85	4135708.38	0.01649	(09022718)
585606.50	4135708.38	0.01707	(10121707)	585627.15	4135708.38	0.01742	(10121101)
585647.80	4135708.38	0.01529	(10121101)	585668.45	4135708.38	0.01489	(10121104)
585255.45	4135722.13	0.00667	(09122917)	585276.10	4135722.13	0.00738	(09122917)
585296.75	4135722.13	0.00789	(09122917)	585317.40	4135722.13	0.00843	(09020421)

585338.05	4135722.13	0.00872	(09020421)	585358.70	4135722.13	0.00943	(09122722)
585379.35	4135722.13	0.01040	(09122722)	585400.00	4135722.13	0.01061	(10121702)
585420.65	4135722.13	0.01186	(10121702)	585441.30	4135722.13	0.01205	(09022405)
585461.95	4135722.13	0.01294	(13121607)	585482.60	4135722.13	0.01402	(11122717)
585503.25	4135722.13	0.01496	(11121208)	585523.90	4135722.13	0.01532	(10022821)
585544.55	4135722.13	0.01681	(09010105)	585565.20	4135722.13	0.01758	(11012821)
585585.85	4135722.13	0.01771	(09022718)	585606.50	4135722.13	0.01858	(11011321)
585627.15	4135722.13	0.01892	(10121101)	585647.80	4135722.13	0.01649	(10121101)
585668.45	4135722.13	0.01594	(10121104)	585255.45	4135735.88	0.00622	(10062605)
585276.10	4135735.88	0.00716	(09122917)	585296.75	4135735.88	0.00800	(09122917)
585317.40	4135735.88	0.00862	(09122917)	585338.05	4135735.88	0.00924	(09020421)
585358.70	4135735.88	0.00956	(09020421)	585379.35	4135735.88	0.01054	(09122722)
585400.00	4135735.88	0.01152	(09122722)	585420.65	4135735.88	0.01214	(10121702)
585441.30	4135735.88	0.01315	(10121702)	585461.95	4135735.88	0.01347	(13121607)
585482.60	4135735.88	0.01486	(11122717)	585503.25	4135735.88	0.01627	(11121208)
585523.90	4135735.88	0.01680	(10022821)	585544.55	4135735.88	0.01808	(09010105)
585565.20	4135735.88	0.01877	(11012821)	585585.85	4135735.88	0.01954	(09012318)
585606.50	4135735.88	0.02036	(11011321)	585627.15	4135735.88	0.02065	(10121101)
585647.80	4135735.88	0.01773	(10121101)	585668.45	4135735.88	0.01739	(10120218)
585255.45	4135749.63	0.00575	(10062605)	585276.10	4135749.63	0.00665	(10062605)
585296.75	4135749.63	0.00771	(09122917)	585317.40	4135749.63	0.00872	(09122917)
585338.05	4135749.63	0.00947	(09122917)	585358.70	4135749.63	0.01019	(09020421)

**MODELOPTs: NonDFAULT CONC FLAT URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , AREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***
** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
585379.35	4135749.63	0.01060	(10091702)	585400.00	4135749.63	0.01186	(09122722)
585420.65	4135749.63	0.01280	(09122722)	585441.30	4135749.63	0.01389	(10121702)
585461.95	4135749.63	0.01455	(09022405)	585482.60	4135749.63	0.01553	(13121607)
585503.25	4135749.63	0.01702	(11121208)	585523.90	4135749.63	0.01790	(10022821)
585544.55	4135749.63	0.01902	(09010105)	585565.20	4135749.63	0.01990	(12021920)
585585.85	4135749.63	0.02167	(09012318)	585606.50	4135749.63	0.02235	(11011321)
585627.15	4135749.63	0.02266	(10121101)	585647.80	4135749.63	0.01928	(13120305)
585668.45	4135749.63	0.01916	(10120218)	585255.45	4135763.38	0.00533	(13051922)
585276.10	4135763.38	0.00607	(10062605)	585296.75	4135763.38	0.00713	(10062605)
585317.40	4135763.38	0.00833	(09122917)	585338.05	4135763.38	0.00954	(09122917)
585358.70	4135763.38	0.01047	(09122917)	585379.35	4135763.38	0.01132	(09020421)
585400.00	4135763.38	0.01188	(10091702)	585420.65	4135763.38	0.01344	(09122722)
585441.30	4135763.38	0.01426	(09122722)	585461.95	4135763.38	0.01586	(10121702)
585482.60	4135763.38	0.01611	(13121607)	585503.25	4135763.38	0.01815	(11122717)
585523.90	4135763.38	0.01998	(11121208)	585544.55	4135763.38	0.02050	(10022821)
585565.20	4135763.38	0.02233	(09010105)	585585.85	4135763.38	0.02390	(09012318)
585606.50	4135763.38	0.02462	(11011321)	585627.15	4135763.38	0.02507	(10021218)
585647.80	4135763.38	0.02129	(09121005)	585668.45	4135763.38	0.02116	(10121102)
585255.45	4135777.13	0.00538	(11031307)	585276.10	4135777.13	0.00577	(13051922)
585296.75	4135777.13	0.00641	(10062605)	585317.40	4135777.13	0.00765	(10062605)
585338.05	4135777.13	0.00904	(09122917)	585358.70	4135777.13	0.01051	(09122917)
585379.35	4135777.13	0.01167	(09122917)	585400.00	4135777.13	0.01270	(09020421)
585420.65	4135777.13	0.01343	(10091702)	585441.30	4135777.13	0.01534	(09122722)
585461.95	4135777.13	0.01629	(10121702)	585482.60	4135777.13	0.01802	(10121702)
585503.25	4135777.13	0.01914	(13121607)	585523.90	4135777.13	0.02140	(11121208)
585544.55	4135777.13	0.02277	(10022821)	585565.20	4135777.13	0.02487	(09010105)
585585.85	4135777.13	0.02632	(11012821)	585606.50	4135777.13	0.02718	(11011321)
585627.15	4135777.13	0.02795	(10021218)	585647.80	4135777.13	0.02377	(09121005)
585668.45	4135777.13	0.02352	(10121102)	585255.45	4135790.88	0.00556	(09020804)

585276.10	4135790.88	0.00585	(13030121)	585296.75	4135790.88	0.00627	(11031307)
585317.40	4135790.88	0.00681	(13051922)	585338.05	4135790.88	0.00822	(10062605)
585358.70	4135790.88	0.00984	(09122917)	585379.35	4135790.88	0.01165	(09122917)
585400.00	4135790.88	0.01312	(09122917)	585420.65	4135790.88	0.01439	(09020421)
585441.30	4135790.88	0.01534	(10091702)	585461.95	4135790.88	0.01766	(09122722)
585482.60	4135790.88	0.01932	(10121702)	585503.25	4135790.88	0.02044	(09022405)
585523.90	4135790.88	0.02292	(11122717)	585544.55	4135790.88	0.02523	(11121208)
585565.20	4135790.88	0.02695	(09010105)	585585.85	4135790.88	0.02925	(11012821)
585606.50	4135790.88	0.03020	(09022718)	585627.15	4135790.88	0.03143	(10021218)
585647.80	4135790.88	0.02678	(09010705)	585668.45	4135790.88	0.02629	(10010120)
585255.45	4135804.63	0.00576	(09020804)	585276.10	4135804.63	0.00613	(09020804)

**MODELOPTs: NonDFAULT CONC FLAT URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , AREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
585296.75	4135804.63	0.00647	(09020804)	585317.40	4135804.63	0.00689	(11031307)
585338.05	4135804.63	0.00751	(13051922)	585358.70	4135804.63	0.00885	(10062605)
585379.35	4135804.63	0.01076	(09122917)	585400.00	4135804.63	0.01302	(09122917)
585420.65	4135804.63	0.01492	(09122917)	585441.30	4135804.63	0.01650	(09020421)
585461.95	4135804.63	0.01797	(09122722)	585482.60	4135804.63	0.02052	(09122722)
585503.25	4135804.63	0.02293	(10121702)	585523.90	4135804.63	0.02443	(13121607)
585544.55	4135804.63	0.02798	(11121208)	585565.20	4135804.63	0.02957	(10022821)
585585.85	4135804.63	0.03196	(11012821)	585606.50	4135804.63	0.03429	(09022718)
585627.15	4135804.63	0.03571	(10021218)	585647.80	4135804.63	0.03072	(10121104)
585668.45	4135804.63	0.02949	(11122703)	585255.45	4135818.38	0.00576	(09020804)
585276.10	4135818.38	0.00625	(09020804)	585296.75	4135818.38	0.00675	(09020804)
585317.40	4135818.38	0.00723	(09020804)	585338.05	4135818.38	0.00767	(09020804)
585358.70	4135818.38	0.00831	(11031307)	585379.35	4135818.38	0.00953	(10062605)
585400.00	4135818.38	0.01185	(10062605)	585420.65	4135818.38	0.01467	(09122917)
585441.30	4135818.38	0.01717	(09122917)	585461.95	4135818.38	0.01922	(09020421)
585482.60	4135818.38	0.02149	(09122722)	585503.25	4135818.38	0.02402	(09122722)
585523.90	4135818.38	0.02703	(10121702)	585544.55	4135818.38	0.03032	(11122717)
585565.20	4135818.38	0.03342	(10022821)	585585.85	4135818.38	0.03707	(09010105)
585606.50	4135818.38	0.03909	(09012318)	585627.15	4135818.38	0.04106	(10021218)
585647.80	4135818.38	0.03566	(10121104)	585668.45	4135818.38	0.03393	(10120902)
585255.45	4135832.13	0.00570	(12101522)	585276.10	4135832.13	0.00618	(12101522)
585296.75	4135832.13	0.00676	(09020804)	585317.40	4135832.13	0.00741	(09020804)
585338.05	4135832.13	0.00807	(09020804)	585358.70	4135832.13	0.00872	(09020804)
585379.35	4135832.13	0.00934	(13030121)	585400.00	4135832.13	0.01039	(13051922)
585420.65	4135832.13	0.01316	(10062605)	585441.30	4135832.13	0.01668	(09122917)
585461.95	4135832.13	0.02007	(09122917)	585482.60	4135832.13	0.02280	(09020421)
585503.25	4135832.13	0.02619	(09122722)	585523.90	4135832.13	0.02982	(10121702)
585544.55	4135832.13	0.03274	(13121607)	585565.20	4135832.13	0.03866	(11121208)
585585.85	4135832.13	0.04241	(09010105)	585606.50	4135832.13	0.04633	(09012318)
585627.15	4135832.13	0.04789	(10021218)	585647.80	4135832.13	0.04181	(10121104)
585668.45	4135832.13	0.03942	(10120902)	585255.45	4135845.88	0.00575	(11111107)
585276.10	4135845.88	0.00616	(11111107)	585296.75	4135845.88	0.00666	(12101522)
585317.40	4135845.88	0.00732	(12101522)	585338.05	4135845.88	0.00809	(09020804)
585358.70	4135845.88	0.00899	(09020804)	585379.35	4135845.88	0.00991	(09020804)
585400.00	4135845.88	0.01082	(09020804)	585420.65	4135845.88	0.01186	(11031307)
585441.30	4135845.88	0.01467	(10062605)	585461.95	4135845.88	0.01918	(09122917)
585482.60	4135845.88	0.02390	(09122917)	585503.25	4135845.88	0.02770	(09020421)
585523.90	4135845.88	0.03267	(09122722)	585544.55	4135845.88	0.03786	(10121702)
585565.20	4135845.88	0.04296	(11122717)	585585.85	4135845.88	0.04831	(10022821)
585606.50	4135845.88	0.05446	(11012821)	585627.15	4135845.88	0.05697	(10022205)

 **MODELOPTs: NonDFAULT CONC   FLAT   URBAN

                          *** THE   1ST HIGHEST 1-HR AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP: ALL   ***
                              INCLUDING SOURCE(S):   L0000001   , L0000002   , L0000003   , L0000004   , L0000005   ,
              L0000006   , AREA1   ,

                                    *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                  ** CONC OF PM_2.5   IN MICROGRAMS/M**3   **

     X-COORD (M) Y-COORD (M)   CONC   (YYMMDDHH)   X-COORD (M) Y-COORD (M)   CONC   (YYMMDDHH)
 -
       585647.80   4135845.88   0.04966 (10121104)   585668.45   4135845.88   0.04637 (13011817)

 **MODELOPTs: NonDFAULT CONC   FLAT   URBAN

                          *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP: ALL   ***
                              INCLUDING SOURCE(S):   L0000001   , L0000002   , L0000003   , L0000004   , L0000005   ,
              L0000006   , AREA1   ,

                                    *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                  ** CONC OF PM_2.5   IN MICROGRAMS/M**3   **

     X-COORD (M) Y-COORD (M)   CONC   (YYMMDDHH)   X-COORD (M) Y-COORD (M)   CONC   (YYMMDDHH)
 -
       585079.42   4135987.04   0.00036c (09051124)   585101.42   4135987.04   0.00039c (09051124)
       585123.42   4135987.04   0.00041c (09051124)   585145.42   4135987.04   0.00044c (09051124)
       585167.42   4135987.04   0.00047c (09051124)   585189.42   4135987.04   0.00051c (09051124)
       585211.42   4135987.04   0.00055c (09051124)   585233.42   4135987.04   0.00060c (09051124)
       585255.42   4135987.04   0.00065c (09051124)   585277.42   4135987.04   0.00071c (09051124)
       585299.42   4135987.04   0.00078c (09051124)   585321.42   4135987.04   0.00086c (09051124)
       585343.42   4135987.04   0.00095c (09051124)   585365.42   4135987.04   0.00105c (09051124)
       585387.42   4135987.04   0.00118c (09051124)   585409.42   4135987.04   0.00147c (12122824)
       585431.42   4135987.04   0.00187c (12122824)   585453.42   4135987.04   0.00242c (12122824)
       585475.42   4135987.04   0.00317c (12122824)   585497.42   4135987.04   0.00424c (12122824)
       585519.42   4135987.04   0.00579c (12122824)   585079.42   4136000.51   0.00036c (09051124)
       585101.42   4136000.51   0.00038c (09051124)   585123.42   4136000.51   0.00041c (09051124)
       585145.42   4136000.51   0.00044c (09051124)   585167.42   4136000.51   0.00047c (09051124)
       585189.42   4136000.51   0.00050c (09051124)   585211.42   4136000.51   0.00054c (09051124)
       585233.42   4136000.51   0.00059c (09051124)   585255.42   4136000.51   0.00064c (09051124)
       585277.42   4136000.51   0.00069c (09051124)   585299.42   4136000.51   0.00075c (09051124)
       585321.42   4136000.51   0.00082c (09051124)   585343.42   4136000.51   0.00094c (12122824)
       585365.42   4136000.51   0.00114c (12122824)   585387.42   4136000.51   0.00140c (12122824)
       585409.42   4136000.51   0.00173c (12122824)   585431.42   4136000.51   0.00216c (12122824)
       585453.42   4136000.51   0.00272c (12122824)   585475.42   4136000.51   0.00346c (12122824)
       585497.42   4136000.51   0.00446c (12122824)   585519.42   4136000.51   0.00621b (13111924)
       585079.42   4136013.98   0.00036c (09051124)   585101.42   4136013.98   0.00038c (09051124)
       585123.42   4136013.98   0.00041c (09051124)   585145.42   4136013.98   0.00043c (09051124)
       585167.42   4136013.98   0.00046c (09051124)   585189.42   4136013.98   0.00050c (09051124)
       585211.42   4136013.98   0.00053c (09051124)   585233.42   4136013.98   0.00057c (09051124)
       585255.42   4136013.98   0.00061c (09051124)   585277.42   4136013.98   0.00067b (09040824)
       585299.42   4136013.98   0.00077c (12122824)   585321.42   4136013.98   0.00091c (12122824)
       585343.42   4136013.98   0.00109c (12122824)   585365.42   4136013.98   0.00131c (12122824)
       585387.42   4136013.98   0.00159c (12122824)   585409.42   4136013.98   0.00193c (12122824)
       585431.42   4136013.98   0.00235c (12122824)   585453.42   4136013.98   0.00288c (12122824)
       585475.42   4136013.98   0.00355c (12122824)   585497.42   4136013.98   0.00465b (13111924)
       585519.42   4136013.98   0.00683b (13111924)   585079.42   4136027.45   0.00035c (09051124)
       585101.42   4136027.45   0.00038c (09051124)   585123.42   4136027.45   0.00040c (09051124)
       585145.42   4136027.45   0.00042c (09051124)   585167.42   4136027.45   0.00045c (09051124)
       585189.42   4136027.45   0.00048c (09051124)   585211.42   4136027.45   0.00052b (09040824)

585233.42	4136027.45	0.00057b (09040824)	585255.42	4136027.45	0.00065c (12122824)
585277.42	4136027.45	0.00075c (12122824)	585299.42	4136027.45	0.00088c (12122824)
585321.42	4136027.45	0.00104c (12122824)	585343.42	4136027.45	0.00123c (12122824)
585365.42	4136027.45	0.00145c (12122824)	585387.42	4136027.45	0.00172c (12122824)
585409.42	4136027.45	0.00204c (12122824)	585431.42	4136027.45	0.00243c (12122824)

**MODELOPTs: NonDFAULT CONC FLAT URBAN

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , AREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)
585453.42	4136027.45	0.00290c (12122824)	585475.42	4136027.45	0.00369b (11022124)
585497.42	4136027.45	0.00509b (13111924)	585519.42	4136027.45	0.00703b (13111924)
585079.42	4136040.92	0.00035c (09051124)	585101.42	4136040.92	0.00037c (09051124)
585123.42	4136040.92	0.00039c (09051124)	585145.42	4136040.92	0.00041b (09040824)
585167.42	4136040.92	0.00045b (09040824)	585189.42	4136040.92	0.00050b (09040824)
585211.42	4136040.92	0.00055c (12122824)	585233.42	4136040.92	0.00063c (12122824)
585255.42	4136040.92	0.00073c (12122824)	585277.42	4136040.92	0.00085c (12122824)
585299.42	4136040.92	0.00098c (12122824)	585321.42	4136040.92	0.00114c (12122824)
585343.42	4136040.92	0.00133c (12122824)	585365.42	4136040.92	0.00154c (12122824)
585387.42	4136040.92	0.00179c (12122824)	585409.42	4136040.92	0.00208c (12122824)
585431.42	4136040.92	0.00243c (12122824)	585453.42	4136040.92	0.00301b (11022124)
585475.42	4136040.92	0.00395b (13111924)	585497.42	4136040.92	0.00529b (13111924)
585519.42	4136040.92	0.00689b (13111924)	585079.42	4136054.39	0.00034b (09040824)
585101.42	4136054.39	0.00037b (09040824)	585123.42	4136054.39	0.00040b (09040824)
585145.42	4136054.39	0.00044b (09040824)	585167.42	4136054.39	0.00048c (12122824)
585189.42	4136054.39	0.00054c (12122824)	585211.42	4136054.39	0.00062c (12122824)
585233.42	4136054.39	0.00071c (12122824)	585255.42	4136054.39	0.00081c (12122824)
585277.42	4136054.39	0.00093c (12122824)	585299.42	4136054.39	0.00106c (12122824)
585321.42	4136054.39	0.00121c (12122824)	585343.42	4136054.39	0.00139c (12122824)
585365.42	4136054.39	0.00158c (12122824)	585387.42	4136054.39	0.00181c (12122824)
585409.42	4136054.39	0.00206c (12122824)	585431.42	4136054.39	0.00252b (11022124)
585453.42	4136054.39	0.00316b (13111924)	585475.42	4136054.39	0.00413b (13111924)
585497.42	4136054.39	0.00528b (13111924)	585519.42	4136054.39	0.00652b (13111924)
585079.42	4136067.86	0.00036b (09040824)	585101.42	4136067.86	0.00039b (09040824)
585123.42	4136067.86	0.00042b (09040824)	585145.42	4136067.86	0.00047c (12122824)
585167.42	4136067.86	0.00053c (12122824)	585189.42	4136067.86	0.00060c (12122824)
585211.42	4136067.86	0.00068c (12122824)	585233.42	4136067.86	0.00077c (12122824)
585255.42	4136067.86	0.00087c (12122824)	585277.42	4136067.86	0.00098c (12122824)
585299.42	4136067.86	0.00111c (12122824)	585321.42	4136067.86	0.00125c (12122824)
585343.42	4136067.86	0.00141c (12122824)	585365.42	4136067.86	0.00159c (12122824)
585387.42	4136067.86	0.00178c (12122824)	585409.42	4136067.86	0.00214b (11022124)
585431.42	4136067.86	0.00260b (13111924)	585453.42	4136067.86	0.00332b (13111924)
585475.42	4136067.86	0.00418b (13111924)	585497.42	4136067.86	0.00513b (13111924)
585519.42	4136067.86	0.00602b (13111924)	585079.42	4136081.33	0.00037b (09040824)
585101.42	4136081.33	0.00041c (12122824)	585123.42	4136081.33	0.00046c (12122824)
585145.42	4136081.33	0.00052c (12122824)	585167.42	4136081.33	0.00058c (12122824)
585189.42	4136081.33	0.00065c (12122824)	585211.42	4136081.33	0.00073c (12122824)
585233.42	4136081.33	0.00082c (12122824)	585255.42	4136081.33	0.00092c (12122824)
585277.42	4136081.33	0.00102c (12122824)	585299.42	4136081.33	0.00114c (12122824)
585321.42	4136081.33	0.00127c (12122824)	585343.42	4136081.33	0.00140c (12122824)

**MODELOPTs: NonDFAULT CONC FLAT URBAN

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 , L0000006 , AREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
585365.42	4136081.33	0.00156c	(12122824)	585387.42	4136081.33	0.00185b	(11022124)
585409.42	4136081.33	0.00220b	(11022124)	585431.42	4136081.33	0.00273b	(13111924)
585453.42	4136081.33	0.00339b	(13111924)	585475.42	4136081.33	0.00412b	(13111924)
585497.42	4136081.33	0.00486b	(13111924)	585519.42	4136081.33	0.00547b	(13111924)
585079.42	4136094.80	0.00041c	(12122824)	585101.42	4136094.80	0.00045c	(12122824)
585123.42	4136094.80	0.00050c	(12122824)	585145.42	4136094.80	0.00056c	(12122824)
585167.42	4136094.80	0.00062c	(12122824)	585189.42	4136094.80	0.00069c	(12122824)
585211.42	4136094.80	0.00077c	(12122824)	585233.42	4136094.80	0.00085c	(12122824)
585255.42	4136094.80	0.00094c	(12122824)	585277.42	4136094.80	0.00104c	(12122824)
585299.42	4136094.80	0.00114c	(12122824)	585321.42	4136094.80	0.00125c	(12122824)
585343.42	4136094.80	0.00137c	(12122824)	585365.42	4136094.80	0.00162b	(11022124)
585387.42	4136094.80	0.00190b	(11022124)	585409.42	4136094.80	0.00228b	(13111924)
585431.42	4136094.80	0.00280b	(13111924)	585453.42	4136094.80	0.00338b	(13111924)
585475.42	4136094.80	0.00399b	(13111924)	585497.42	4136094.80	0.00454b	(13111924)
585519.42	4136094.80	0.00491b	(13111924)	585079.42	4136108.27	0.00044c	(12122824)
585101.42	4136108.27	0.00049c	(12122824)	585123.42	4136108.27	0.00054c	(12122824)
585145.42	4136108.27	0.00060c	(12122824)	585167.42	4136108.27	0.00066c	(12122824)
585189.42	4136108.27	0.00072c	(12122824)	585211.42	4136108.27	0.00079c	(12122824)
585233.42	4136108.27	0.00087c	(12122824)	585255.42	4136108.27	0.00095c	(12122824)
585277.42	4136108.27	0.00104c	(12122824)	585299.42	4136108.27	0.00113c	(12122824)
585321.42	4136108.27	0.00122b	(11022124)	585343.42	4136108.27	0.00143b	(11022124)
585365.42	4136108.27	0.00166b	(11022124)	585387.42	4136108.27	0.00194b	(13111924)
585409.42	4136108.27	0.00236b	(13111924)	585431.42	4136108.27	0.00282b	(13111924)
585453.42	4136108.27	0.00332b	(13111924)	585475.42	4136108.27	0.00380b	(13111924)
585497.42	4136108.27	0.00418b	(13111924)	585519.42	4136108.27	0.00438b	(13111924)
585079.42	4136121.74	0.00047c	(12122824)	585101.42	4136121.74	0.00052c	(12122824)
585123.42	4136121.74	0.00057c	(12122824)	585145.42	4136121.74	0.00062c	(12122824)
585167.42	4136121.74	0.00068c	(12122824)	585189.42	4136121.74	0.00074c	(12122824)
585211.42	4136121.74	0.00081c	(12122824)	585233.42	4136121.74	0.00088c	(12122824)
585255.42	4136121.74	0.00095c	(12122824)	585277.42	4136121.74	0.00102c	(12122824)
585299.42	4136121.74	0.00110b	(11022124)	585321.42	4136121.74	0.00127b	(11022124)
585343.42	4136121.74	0.00146b	(11022124)	585365.42	4136121.74	0.00167b	(13111924)
585387.42	4136121.74	0.00201b	(13111924)	585409.42	4136121.74	0.00239b	(13111924)
585431.42	4136121.74	0.00280b	(13111924)	585453.42	4136121.74	0.00321b	(13111924)
585475.42	4136121.74	0.00357b	(13111924)	585497.42	4136121.74	0.00382b	(13111924)
585519.42	4136121.74	0.00388b	(13111924)	585079.42	4136135.21	0.00050c	(12122824)
585101.42	4136135.21	0.00054c	(12122824)	585123.42	4136135.21	0.00059c	(12122824)
585145.42	4136135.21	0.00064c	(12122824)	585167.42	4136135.21	0.00069c	(12122824)
585189.42	4136135.21	0.00075c	(12122824)	585211.42	4136135.21	0.00081c	(12122824)
585233.42	4136135.21	0.00087c	(12122824)	585255.42	4136135.21	0.00093c	(12122824)

**MODELOPTs: NonDFAULT CONC FLAT URBAN

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 , L0000006 , AREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
585277.42	4136135.21	0.00100b	(11022124)	585299.42	4136135.21	0.00114b	(11022124)
585321.42	4136135.21	0.00130b	(11022124)	585343.42	4136135.21	0.00147b	(11022124)

585365.42	4136135.21	0.00174b (13111924)	585387.42	4136135.21	0.00205b (13111924)
585409.42	4136135.21	0.00239b (13111924)	585431.42	4136135.21	0.00274b (13111924)
585453.42	4136135.21	0.00307b (13111924)	585475.42	4136135.21	0.00333b (13111924)
585497.42	4136135.21	0.00347b (13111924)	585519.42	4136135.21	0.00354b (11112224)
585079.42	4136148.68	0.00052c (12122824)	585101.42	4136148.68	0.00056c (12122824)
585123.42	4136148.68	0.00060c (12122824)	585145.42	4136148.68	0.00065c (12122824)
585167.42	4136148.68	0.00070c (12122824)	585189.42	4136148.68	0.00075c (12122824)
585211.42	4136148.68	0.00080c (12122824)	585233.42	4136148.68	0.00085c (12122824)
585255.42	4136148.68	0.00091b (11022124)	585277.42	4136148.68	0.00103b (11022124)
585299.42	4136148.68	0.00117b (11022124)	585321.42	4136148.68	0.00131b (11022124)
585343.42	4136148.68	0.00151b (13111924)	585365.42	4136148.68	0.00177b (13111924)
585387.42	4136148.68	0.00206b (13111924)	585409.42	4136148.68	0.00236b (13111924)
585431.42	4136148.68	0.00265b (13111924)	585453.42	4136148.68	0.00290b (13111924)
585475.42	4136148.68	0.00308b (13111924)	585497.42	4136148.68	0.00314b (13111924)
585519.42	4136148.68	0.00326b (11112224)	585079.42	4136162.15	0.00053c (12122824)
585101.42	4136162.15	0.00057c (12122824)	585123.42	4136162.15	0.00061c (12122824)
585145.42	4136162.15	0.00065c (12122824)	585167.42	4136162.15	0.00069c (12122824)
585189.42	4136162.15	0.00074c (12122824)	585211.42	4136162.15	0.00078c (12122824)
585233.42	4136162.15	0.00083b (11022124)	585255.42	4136162.15	0.00094b (11022124)
585277.42	4136162.15	0.00105b (11022124)	585299.42	4136162.15	0.00117b (11022124)
585321.42	4136162.15	0.00133b (13111924)	585343.42	4136162.15	0.00155b (13111924)
585365.42	4136162.15	0.00179b (13111924)	585387.42	4136162.15	0.00205b (13111924)
585409.42	4136162.15	0.00231b (13111924)	585431.42	4136162.15	0.00254b (13111924)
585453.42	4136162.15	0.00273b (13111924)	585475.42	4136162.15	0.00284b (13111924)
585497.42	4136162.15	0.00285b (11112224)	585519.42	4136162.15	0.00300b (11112224)
585079.42	4136175.62	0.00054c (12122824)	585101.42	4136175.62	0.00058c (12122824)
585123.42	4136175.62	0.00061c (12122824)	585145.42	4136175.62	0.00065c (12122824)
585167.42	4136175.62	0.00068c (12122824)	585189.42	4136175.62	0.00072c (12122824)
585211.42	4136175.62	0.00077b (11022124)	585233.42	4136175.62	0.00086b (11022124)
585255.42	4136175.62	0.00096b (11022124)	585277.42	4136175.62	0.00106b (11022124)
585299.42	4136175.62	0.00118b (13111924)	585321.42	4136175.62	0.00137b (13111924)
585343.42	4136175.62	0.00158b (13111924)	585365.42	4136175.62	0.00180b (13111924)
585387.42	4136175.62	0.00202b (13111924)	585409.42	4136175.62	0.00223b (13111924)
585431.42	4136175.62	0.00242b (13111924)	585453.42	4136175.62	0.00255b (13111924)
585475.42	4136175.62	0.00260b (13111924)	585497.42	4136175.62	0.00267b (11112224)
585519.42	4136175.62	0.00275b (11112224)	585079.42	4136189.09	0.00054c (12122824)
585101.42	4136189.09	0.00057c (12122824)	585123.42	4136189.09	0.00060c (12122824)
585145.42	4136189.09	0.00063c (12122824)	585167.42	4136189.09	0.00067c (12122824)

**MODELOPTs: NonDFAULT CONC FLAT URBAN

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , AREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)
585189.42	4136189.09	0.00071b (11022124)	585211.42	4136189.09	0.00079b (11022124)
585233.42	4136189.09	0.00087b (11022124)	585255.42	4136189.09	0.00096b (11022124)
585277.42	4136189.09	0.00106b (11022124)	585299.42	4136189.09	0.00122b (13111924)
585321.42	4136189.09	0.00139b (13111924)	585343.42	4136189.09	0.00158b (13111924)
585365.42	4136189.09	0.00178b (13111924)	585387.42	4136189.09	0.00197b (13111924)
585409.42	4136189.09	0.00215b (13111924)	585431.42	4136189.09	0.00228b (13111924)
585453.42	4136189.09	0.00237b (13111924)	585475.42	4136189.09	0.00238b (13111924)
585497.42	4136189.09	0.00249b (11112224)	585519.42	4136189.09	0.00252b (11112224)
585079.42	4136202.56	0.00054c (12122824)	585101.42	4136202.56	0.00057c (12122824)
585123.42	4136202.56	0.00059c (12122824)	585145.42	4136202.56	0.00062c (12122824)
585167.42	4136202.56	0.00066b (11022124)	585189.42	4136202.56	0.00073b (11022124)
585211.42	4136202.56	0.00080b (11022124)	585233.42	4136202.56	0.00088b (11022124)
585255.42	4136202.56	0.00096b (11022124)	585277.42	4136202.56	0.00109b (13111924)

585299.42	4136202.56	0.00124b (13111924)	585321.42	4136202.56	0.00141b (13111924)
585343.42	4136202.56	0.00158b (13111924)	585365.42	4136202.56	0.00175b (13111924)
585387.42	4136202.56	0.00191b (13111924)	585409.42	4136202.56	0.00205b (13111924)
585431.42	4136202.56	0.00215b (13111924)	585453.42	4136202.56	0.00219b (13111924)
585475.42	4136202.56	0.00223b (11112224)	585497.42	4136202.56	0.00231b (11112224)
585519.42	4136202.56	0.00236b (12022724)	585079.42	4136216.03	0.00053c (12122824)
585101.42	4136216.03	0.00055c (12122824)	585123.42	4136216.03	0.00058c (12122824)
585145.42	4136216.03	0.00061b (11022124)	585167.42	4136216.03	0.00067b (11022124)
585189.42	4136216.03	0.00074b (11022124)	585211.42	4136216.03	0.00081b (11022124)
585233.42	4136216.03	0.00088b (11022124)	585255.42	4136216.03	0.00098b (13111924)
585277.42	4136216.03	0.00111b (13111924)	585299.42	4136216.03	0.00126b (13111924)
585321.42	4136216.03	0.00141b (13111924)	585343.42	4136216.03	0.00157b (13111924)
585365.42	4136216.03	0.00171b (13111924)	585387.42	4136216.03	0.00184b (13111924)
585409.42	4136216.03	0.00195b (13111924)	585431.42	4136216.03	0.00201b (13111924)
585453.42	4136216.03	0.00203b (13111924)	585475.42	4136216.03	0.00210b (11112224)
585497.42	4136216.03	0.00215b (11112224)	585519.42	4136216.03	0.00223b (12022724)
585079.42	4136229.50	0.00052c (12122824)	585101.42	4136229.50	0.00054c (12122824)
585123.42	4136229.50	0.00057b (11022124)	585145.42	4136229.50	0.00063b (11022124)
585167.42	4136229.50	0.00068b (11022124)	585189.42	4136229.50	0.00074b (11022124)
585211.42	4136229.50	0.00081b (11022124)	585233.42	4136229.50	0.00088b (13111924)
585255.42	4136229.50	0.00100b (13111924)	585277.42	4136229.50	0.00113b (13111924)
585299.42	4136229.50	0.00126b (13111924)	585321.42	4136229.50	0.00140b (13111924)
585343.42	4136229.50	0.00154b (13111924)	585365.42	4136229.50	0.00166b (13111924)
585387.42	4136229.50	0.00177b (13111924)	585409.42	4136229.50	0.00184b (13111924)
585431.42	4136229.50	0.00188b (13111924)	585453.42	4136229.50	0.00189b (11112224)
585475.42	4136229.50	0.00198b (11112224)	585497.42	4136229.50	0.00200b (11112224)
585519.42	4136229.50	0.00211b (12022724)	585079.42	4136242.97	0.00051c (12122824)

**MODELOPTs: NonDFAULT CONC FLAT URBAN

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , AREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)
585101.42	4136242.97	0.00053b (11022124)	585123.42	4136242.97	0.00058b (11022124)
585145.42	4136242.97	0.00064b (11022124)	585167.42	4136242.97	0.00069b (11022124)
585189.42	4136242.97	0.00075b (11022124)	585211.42	4136242.97	0.00080b (13111924)
585233.42	4136242.97	0.00091b (13111924)	585255.42	4136242.97	0.00102b (13111924)
585277.42	4136242.97	0.00114b (13111924)	585299.42	4136242.97	0.00126b (13111924)
585321.42	4136242.97	0.00139b (13111924)	585343.42	4136242.97	0.00150b (13111924)
585365.42	4136242.97	0.00161b (13111924)	585387.42	4136242.97	0.00169b (13111924)
585409.42	4136242.97	0.00174b (13111924)	585431.42	4136242.97	0.00176b (13111924)
585453.42	4136242.97	0.00180b (11112224)	585475.42	4136242.97	0.00185b (11112224)
585497.42	4136242.97	0.00187b (12022724)	585519.42	4136242.97	0.00199b (12022724)
585079.42	4136256.44	0.00050b (11022124)	585101.42	4136256.44	0.00055b (11022124)
585123.42	4136256.44	0.00059b (11022124)	585145.42	4136256.44	0.00064b (11022124)
585167.42	4136256.44	0.00069b (11022124)	585189.42	4136256.44	0.00074b (11022124)
585211.42	4136256.44	0.00082b (13111924)	585233.42	4136256.44	0.00092b (13111924)
585255.42	4136256.44	0.00103b (13111924)	585277.42	4136256.44	0.00114b (13111924)
585299.42	4136256.44	0.00126b (13111924)	585321.42	4136256.44	0.00136b (13111924)
585343.42	4136256.44	0.00146b (13111924)	585365.42	4136256.44	0.00154b (13111924)
585387.42	4136256.44	0.00160b (13111924)	585409.42	4136256.44	0.00164b (13111924)
585431.42	4136256.44	0.00163b (13111924)	585453.42	4136256.44	0.00171b (11112224)
585475.42	4136256.44	0.00174b (11112224)	585497.42	4136256.44	0.00179b (12022724)
585519.42	4136256.44	0.00187b (12022724)	585255.45	4135570.88	0.00064b (12122924)
585276.10	4135570.88	0.00074b (12122924)	585296.75	4135570.88	0.00084b (12122924)
585317.40	4135570.88	0.00094b (12122924)	585338.05	4135570.88	0.00103b (12122924)
585358.70	4135570.88	0.00111b (12122924)	585379.35	4135570.88	0.00116b (12122924)

585400.00	4135570.88	0.00118b	(12122924)	585420.65	4135570.88	0.00116b	(12122924)
585441.30	4135570.88	0.00125b	(12072924)	585461.95	4135570.88	0.00141b	(12072924)
585482.60	4135570.88	0.00149b	(12072924)	585503.25	4135570.88	0.00151b	(09071124)
585523.90	4135570.88	0.00167b	(09071124)	585544.55	4135570.88	0.00180b	(09071124)
585565.20	4135570.88	0.00186b	(09071124)	585585.85	4135570.88	0.00180b	(09071124)
585606.50	4135570.88	0.00181b	(13072024)	585627.15	4135570.88	0.00179b	(13072024)
585647.80	4135570.88	0.00173b	(10070524)	585668.45	4135570.88	0.00162b	(10070524)
585255.45	4135584.63	0.00062b	(10021924)	585276.10	4135584.63	0.00072b	(12122924)
585296.75	4135584.63	0.00083b	(12122924)	585317.40	4135584.63	0.00094b	(12122924)
585338.05	4135584.63	0.00104b	(12122924)	585358.70	4135584.63	0.00114b	(12122924)
585379.35	4135584.63	0.00121b	(12122924)	585400.00	4135584.63	0.00125b	(12122924)
585420.65	4135584.63	0.00124b	(12122924)	585441.30	4135584.63	0.00124b	(12072924)
585461.95	4135584.63	0.00145b	(12072924)	585482.60	4135584.63	0.00157b	(12072924)
585503.25	4135584.63	0.00157b	(12072924)	585523.90	4135584.63	0.00174b	(09071124)
585544.55	4135584.63	0.00190b	(09071124)	585565.20	4135584.63	0.00197b	(09071124)
585585.85	4135584.63	0.00192b	(09071124)	585606.50	4135584.63	0.00191b	(13072024)

**MODELOPTs: NonDFAULT CONC FLAT URBAN

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , AREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
585627.15	4135584.63	0.00189b	(13072024)	585647.80	4135584.63	0.00183b	(10070524)
585668.45	4135584.63	0.00171b	(10070524)	585255.45	4135598.38	0.00063b	(10021924)
585276.10	4135598.38	0.00069b	(12122924)	585296.75	4135598.38	0.00080b	(12122924)
585317.40	4135598.38	0.00092b	(12122924)	585338.05	4135598.38	0.00104b	(12122924)
585358.70	4135598.38	0.00116b	(12122924)	585379.35	4135598.38	0.00125b	(12122924)
585400.00	4135598.38	0.00131b	(12122924)	585420.65	4135598.38	0.00133b	(12122924)
585441.30	4135598.38	0.00130b	(12122924)	585461.95	4135598.38	0.00147b	(12072924)
585482.60	4135598.38	0.00163b	(12072924)	585503.25	4135598.38	0.00167b	(12072924)
585523.90	4135598.38	0.00182b	(09071124)	585544.55	4135598.38	0.00200b	(09071124)
585565.20	4135598.38	0.00209b	(09071124)	585585.85	4135598.38	0.00206b	(09071124)
585606.50	4135598.38	0.00202b	(13072024)	585627.15	4135598.38	0.00201b	(13072024)
585647.80	4135598.38	0.00195b	(10070524)	585668.45	4135598.38	0.00182b	(10070524)
585255.45	4135612.13	0.00064b	(10021924)	585276.10	4135612.13	0.00069b	(10021924)
585296.75	4135612.13	0.00078b	(12122924)	585317.40	4135612.13	0.00090b	(12122924)
585338.05	4135612.13	0.00104b	(12122924)	585358.70	4135612.13	0.00117b	(12122924)
585379.35	4135612.13	0.00128b	(12122924)	585400.00	4135612.13	0.00137b	(12122924)
585420.65	4135612.13	0.00141b	(12122924)	585441.30	4135612.13	0.00140b	(12122924)
585461.95	4135612.13	0.00148b	(12072924)	585482.60	4135612.13	0.00169b	(12072924)
585503.25	4135612.13	0.00178b	(12072924)	585523.90	4135612.13	0.00190b	(09071124)
585544.55	4135612.13	0.00211b	(09071124)	585565.20	4135612.13	0.00223b	(09071124)
585585.85	4135612.13	0.00221b	(09071124)	585606.50	4135612.13	0.00215b	(13072024)
585627.15	4135612.13	0.00214b	(13072024)	585647.80	4135612.13	0.00208b	(10070524)
585668.45	4135612.13	0.00193b	(10070524)	585255.45	4135625.88	0.00063b	(10021924)
585276.10	4135625.88	0.00070b	(10021924)	585296.75	4135625.88	0.00076b	(10021924)
585317.40	4135625.88	0.00088b	(12122924)	585338.05	4135625.88	0.00102b	(12122924)
585358.70	4135625.88	0.00117b	(12122924)	585379.35	4135625.88	0.00130b	(12122924)
585400.00	4135625.88	0.00142b	(12122924)	585420.65	4135625.88	0.00149b	(12122924)
585441.30	4135625.88	0.00151b	(12122924)	585461.95	4135625.88	0.00147b	(12072924)
585482.60	4135625.88	0.00174b	(12072924)	585503.25	4135625.88	0.00188b	(12072924)
585523.90	4135625.88	0.00198b	(09071124)	585544.55	4135625.88	0.00222b	(09071124)
585565.20	4135625.88	0.00237b	(09071124)	585585.85	4135625.88	0.00237b	(09071124)
585606.50	4135625.88	0.00228b	(13072024)	585627.15	4135625.88	0.00228b	(13072024)
585647.80	4135625.88	0.00222b	(10070524)	585668.45	4135625.88	0.00205b	(10070524)
585255.45	4135639.63	0.00062b	(10021924)	585276.10	4135639.63	0.00069b	(10021924)
585296.75	4135639.63	0.00077b	(10021924)	585317.40	4135639.63	0.00084b	(12122924)

585338.05	4135639.63	0.00099b	(12122924)	585358.70	4135639.63	0.00115b (12122924)
585379.35	4135639.63	0.00131b	(12122924)	585400.00	4135639.63	0.00145b (12122924)
585420.65	4135639.63	0.00156b	(12122924)	585441.30	4135639.63	0.00161b (12122924)
585461.95	4135639.63	0.00159b	(12122924)	585482.60	4135639.63	0.00177b (12072924)
585503.25	4135639.63	0.00198b	(12072924)	585523.90	4135639.63	0.00207b (09071124)

**MODELOPTs: NonDFAULT CONC FLAT URBAN

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , AREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
585544.55	4135639.63	0.00234b	(09071124)	585565.20	4135639.63	0.00253b	(09071124)
585585.85	4135639.63	0.00255b	(09071124)	585606.50	4135639.63	0.00244b	(13072024)
585627.15	4135639.63	0.00244b	(13072024)	585647.80	4135639.63	0.00238b	(10070524)
585668.45	4135639.63	0.00218b	(10070524)	585255.45	4135653.38	0.00060b	(10021924)
585276.10	4135653.38	0.00068b	(10021924)	585296.75	4135653.38	0.00076b	(10021924)
585317.40	4135653.38	0.00084b	(10021924)	585338.05	4135653.38	0.00096b	(12122924)
585358.70	4135653.38	0.00113b	(12122924)	585379.35	4135653.38	0.00131b	(12122924)
585400.00	4135653.38	0.00148b	(12122924)	585420.65	4135653.38	0.00162b	(12122924)
585441.30	4135653.38	0.00171b	(12122924)	585461.95	4135653.38	0.00173b	(12122924)
585482.60	4135653.38	0.00179b	(12072924)	585503.25	4135653.38	0.00207b	(12072924)
585523.90	4135653.38	0.00216b	(12072924)	585544.55	4135653.38	0.00247b	(09071124)
585565.20	4135653.38	0.00271b	(09071124)	585585.85	4135653.38	0.00276b	(09071124)
585606.50	4135653.38	0.00260b	(13072024)	585627.15	4135653.38	0.00263b	(10070524)
585647.80	4135653.38	0.00256b	(10070524)	585668.45	4135653.38	0.00233b	(10070524)
585255.45	4135667.13	0.00060b	(10062624)	585276.10	4135667.13	0.00066b	(10021924)
585296.75	4135667.13	0.00075b	(10021924)	585317.40	4135667.13	0.00085b	(10021924)
585338.05	4135667.13	0.00094b	(10021924)	585358.70	4135667.13	0.00109b	(12122924)
585379.35	4135667.13	0.00129b	(12122924)	585400.00	4135667.13	0.00149b	(12122924)
585420.65	4135667.13	0.00167b	(12122924)	585441.30	4135667.13	0.00181b	(12122924)
585461.95	4135667.13	0.00186b	(12122924)	585482.60	4135667.13	0.00183b	(12122924)
585503.25	4135667.13	0.00214b	(12072924)	585523.90	4135667.13	0.00232b	(12072924)
585544.55	4135667.13	0.00261b	(09071124)	585565.20	4135667.13	0.00290b	(09071124)
585585.85	4135667.13	0.00298b	(09071124)	585606.50	4135667.13	0.00279b	(13072024)
585627.15	4135667.13	0.00284b	(10070524)	585647.80	4135667.13	0.00276b	(10070524)
585668.45	4135667.13	0.00252c	(12072224)	585255.45	4135680.88	0.00067b	(10062624)
585276.10	4135680.88	0.00065b	(10062624)	585296.75	4135680.88	0.00073b	(10021924)
585317.40	4135680.88	0.00084b	(10021924)	585338.05	4135680.88	0.00094b	(10021924)
585358.70	4135680.88	0.00105b	(12122924)	585379.35	4135680.88	0.00126b	(12122924)
585400.00	4135680.88	0.00149b	(12122924)	585420.65	4135680.88	0.00171b	(12122924)
585441.30	4135680.88	0.00189b	(12122924)	585461.95	4135680.88	0.00200b	(12122924)
585482.60	4135680.88	0.00201b	(12122924)	585503.25	4135680.88	0.00220b	(12072924)
585523.90	4135680.88	0.00247b	(12072924)	585544.55	4135680.88	0.00275b	(09071124)
585565.20	4135680.88	0.00311b	(09071124)	585585.85	4135680.88	0.00324b	(09071124)
585606.50	4135680.88	0.00303b	(09071124)	585627.15	4135680.88	0.00308b	(10070524)
585647.80	4135680.88	0.00299b	(10070524)	585668.45	4135680.88	0.00274c	(12072224)
585255.45	4135694.63	0.00073b	(10062624)	585276.10	4135694.63	0.00072b	(10062624)
585296.75	4135694.63	0.00070b	(10062624)	585317.40	4135694.63	0.00081b	(10021924)
585338.05	4135694.63	0.00094b	(10021924)	585358.70	4135694.63	0.00106b	(10021924)
585379.35	4135694.63	0.00121b	(12122924)	585400.00	4135694.63	0.00146b	(12122924)
585420.65	4135694.63	0.00172b	(12122924)	585441.30	4135694.63	0.00195b	(12122924)

**MODELOPTs: NonDFAULT CONC FLAT URBAN

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 , L0000006 , AREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
585461.95	4135694.63	0.00212b	(12122924)	585482.60	4135694.63	0.00219b	(12122924)
585503.25	4135694.63	0.00223b	(12072924)	585523.90	4135694.63	0.00261b	(12072924)
585544.55	4135694.63	0.00290b	(09071124)	585565.20	4135694.63	0.00333b	(09071124)
585585.85	4135694.63	0.00353b	(09071124)	585606.50	4135694.63	0.00333b	(09071124)
585627.15	4135694.63	0.00336b	(10070524)	585647.80	4135694.63	0.00325b	(10070524)
585668.45	4135694.63	0.00300c	(12072224)	585255.45	4135708.38	0.00077b	(10062624)
585276.10	4135708.38	0.00079b	(10062624)	585296.75	4135708.38	0.00079b	(10062624)
585317.40	4135708.38	0.00077b	(10021924)	585338.05	4135708.38	0.00091b	(10021924)
585358.70	4135708.38	0.00105b	(10021924)	585379.35	4135708.38	0.00120b	(10021924)
585400.00	4135708.38	0.00142b	(12122924)	585420.65	4135708.38	0.00171b	(12122924)
585441.30	4135708.38	0.00199b	(12122924)	585461.95	4135708.38	0.00223b	(12122924)
585482.60	4135708.38	0.00237b	(12122924)	585503.25	4135708.38	0.00237b	(12122924)
585523.90	4135708.38	0.00274b	(12072924)	585544.55	4135708.38	0.00305b	(09071124)
585565.20	4135708.38	0.00358b	(09071124)	585585.85	4135708.38	0.00386b	(09071124)
585606.50	4135708.38	0.00368b	(09071124)	585627.15	4135708.38	0.00367b	(10070524)
585647.80	4135708.38	0.00355b	(10070524)	585668.45	4135708.38	0.00331c	(12072224)
585255.45	4135722.13	0.00081b	(10062624)	585276.10	4135722.13	0.00084b	(10062624)
585296.75	4135722.13	0.00086b	(10062624)	585317.40	4135722.13	0.00087b	(10062624)
585338.05	4135722.13	0.00087b	(10021924)	585358.70	4135722.13	0.00103b	(10021924)
585379.35	4135722.13	0.00120b	(10021924)	585400.00	4135722.13	0.00136b	(10021924)
585420.65	4135722.13	0.00167b	(12122924)	585441.30	4135722.13	0.00201b	(12122924)
585461.95	4135722.13	0.00232b	(12122924)	585482.60	4135722.13	0.00255b	(12122924)
585503.25	4135722.13	0.00262b	(12122924)	585523.90	4135722.13	0.00283b	(12072924)
585544.55	4135722.13	0.00320b	(09071124)	585565.20	4135722.13	0.00385b	(09071124)
585585.85	4135722.13	0.00423b	(09071124)	585606.50	4135722.13	0.00409b	(09071124)
585627.15	4135722.13	0.00404b	(10070524)	585647.80	4135722.13	0.00390b	(10070524)
585668.45	4135722.13	0.00359c	(12072224)	585255.45	4135735.88	0.00082b	(10062624)
585276.10	4135735.88	0.00088b	(10062624)	585296.75	4135735.88	0.00092b	(10062624)
585317.40	4135735.88	0.00095b	(10062624)	585338.05	4135735.88	0.00095b	(10062624)
585358.70	4135735.88	0.00098b	(10021924)	585379.35	4135735.88	0.00117b	(10021924)
585400.00	4135735.88	0.00137b	(10021924)	585420.65	4135735.88	0.00160b	(12122924)
585441.30	4135735.88	0.00198b	(12122924)	585461.95	4135735.88	0.00237b	(12122924)
585482.60	4135735.88	0.00270b	(12122924)	585503.25	4135735.88	0.00288b	(12122924)
585523.90	4135735.88	0.00288b	(12072924)	585544.55	4135735.88	0.00344b	(12072924)
585565.20	4135735.88	0.00413b	(09071124)	585585.85	4135735.88	0.00465b	(09071124)
585606.50	4135735.88	0.00456b	(09071124)	585627.15	4135735.88	0.00448b	(10070524)
585647.80	4135735.88	0.00426b	(10070524)	585668.45	4135735.88	0.00399c	(12072224)
585255.45	4135749.63	0.00081b	(10062624)	585276.10	4135749.63	0.00089b	(10062624)
585296.75	4135749.63	0.00096b	(10062624)	585317.40	4135749.63	0.00101b	(10062624)
585338.05	4135749.63	0.00105b	(10062624)	585358.70	4135749.63	0.00106b	(10062624)

**MODELOPTs: NonDFAULT CONC FLAT URBAN

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 , L0000006 , AREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
585379.35	4135749.63	0.00112b	(10021924)	585400.00	4135749.63	0.00135b	(10021924)
585420.65	4135749.63	0.00159b	(10021924)	585441.30	4135749.63	0.00192b	(12122924)

585461.95	4135749.63	0.00238b (12122924)	585482.60	4135749.63	0.00282b (12122924)
585503.25	4135749.63	0.00313b (12122924)	585523.90	4135749.63	0.00321b (12122924)
585544.55	4135749.63	0.00367b (12072924)	585565.20	4135749.63	0.00442b (09071124)
585585.85	4135749.63	0.00514b (09071124)	585606.50	4135749.63	0.00513b (09071124)
585627.15	4135749.63	0.00500b (10070524)	585647.80	4135749.63	0.00473b (10070524)
585668.45	4135749.63	0.00446c (12072224)	585255.45	4135763.38	0.00079b (10062624)
585276.10	4135763.38	0.00088b (10062624)	585296.75	4135763.38	0.00097b (10062624)
585317.40	4135763.38	0.00105b (10062624)	585338.05	4135763.38	0.00112b (10062624)
585358.70	4135763.38	0.00117b (10062624)	585379.35	4135763.38	0.00119b (10062624)
585400.00	4135763.38	0.00129b (10021924)	585420.65	4135763.38	0.00157b (10021924)
585441.30	4135763.38	0.00186b (10021924)	585461.95	4135763.38	0.00233b (12122924)
585482.60	4135763.38	0.00288b (12122924)	585503.25	4135763.38	0.00335b (12122924)
585523.90	4135763.38	0.00360b (12122924)	585544.55	4135763.38	0.00384b (12072924)
585565.20	4135763.38	0.00472b (09071124)	585585.85	4135763.38	0.00569b (09071124)
585606.50	4135763.38	0.00582b (09071124)	585627.15	4135763.38	0.00562b (10070524)
585647.80	4135763.38	0.00529b (10070524)	585668.45	4135763.38	0.00495c (12072224)
585255.45	4135777.13	0.00075b (10062624)	585276.10	4135777.13	0.00084b (10062624)
585296.75	4135777.13	0.00095b (10062624)	585317.40	4135777.13	0.00106b (10062624)
585338.05	4135777.13	0.00116b (10062624)	585358.70	4135777.13	0.00125b (10062624)
585379.35	4135777.13	0.00132b (10062624)	585400.00	4135777.13	0.00134b (10062624)
585420.65	4135777.13	0.00150b (10021924)	585441.30	4135777.13	0.00186b (10021924)
585461.95	4135777.13	0.00222b (12122924)	585482.60	4135777.13	0.00288b (12122924)
585503.25	4135777.13	0.00352b (12122924)	585523.90	4135777.13	0.00398b (12122924)
585544.55	4135777.13	0.00405b (12122924)	585565.20	4135777.13	0.00502b (09071124)
585585.85	4135777.13	0.00630b (09071124)	585606.50	4135777.13	0.00665b (09071124)
585627.15	4135777.13	0.00638b (10070524)	585647.80	4135777.13	0.00596b (10070524)
585668.45	4135777.13	0.00560c (12072224)	585255.45	4135790.88	0.00070b (10062624)
585276.10	4135790.88	0.00080b (10062624)	585296.75	4135790.88	0.00091b (10062624)
585317.40	4135790.88	0.00103b (10062624)	585338.05	4135790.88	0.00116b (10062624)
585358.70	4135790.88	0.00129b (10062624)	585379.35	4135790.88	0.00141b (10062624)
585400.00	4135790.88	0.00150b (10062624)	585420.65	4135790.88	0.00153b (10062624)
585441.30	4135790.88	0.00178b (10021924)	585461.95	4135790.88	0.00223b (10021924)
585482.60	4135790.88	0.00278b (12122924)	585503.25	4135790.88	0.00360b (12122924)
585523.90	4135790.88	0.00432b (12122924)	585544.55	4135790.88	0.00466b (12122924)
585565.20	4135790.88	0.00528b (12072924)	585585.85	4135790.88	0.00700b (09071124)
585606.50	4135790.88	0.00766b (09071124)	585627.15	4135790.88	0.00732b (10070524)
585647.80	4135790.88	0.00677c (12072224)	585668.45	4135790.88	0.00639c (12072224)
585255.45	4135804.63	0.00064b (10062624)	585276.10	4135804.63	0.00074b (10062624)

**MODELOPTs: NonDFAULT CONC FLAT URBAN

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , AREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)
585296.75	4135804.63	0.00085b (10062624)	585317.40	4135804.63	0.00098b (10062624)
585338.05	4135804.63	0.00112b (10062624)	585358.70	4135804.63	0.00128b (10062624)
585379.35	4135804.63	0.00144b (10062624)	585400.00	4135804.63	0.00160b (10062624)
585420.65	4135804.63	0.00172b (10062624)	585441.30	4135804.63	0.00177b (10062624)
585461.95	4135804.63	0.00215b (10021924)	585482.60	4135804.63	0.00272b (10021924)
585503.25	4135804.63	0.00355b (12122924)	585523.90	4135804.63	0.00456b (12122924)
585544.55	4135804.63	0.00528b (12122924)	585565.20	4135804.63	0.00565b (12072924)
585585.85	4135804.63	0.00774b (09071124)	585606.50	4135804.63	0.00892b (09071124)
585627.15	4135804.63	0.00850b (10070524)	585647.80	4135804.63	0.00792c (12072224)
585668.45	4135804.63	0.00734c (12072224)	585255.45	4135818.38	0.00061b (12092024)
585276.10	4135818.38	0.00067b (10062624)	585296.75	4135818.38	0.00077b (10062624)
585317.40	4135818.38	0.00090b (10062624)	585338.05	4135818.38	0.00105b (10062624)
585358.70	4135818.38	0.00122b (10062624)	585379.35	4135818.38	0.00142b (10062624)

585400.00	4135818.38	0.00163b (10062624)	585420.65	4135818.38	0.00184b (10062624)
585441.30	4135818.38	0.00200b (10062624)	585461.95	4135818.38	0.00208b (10062624)
585482.60	4135818.38	0.00265b (10021924)	585503.25	4135818.38	0.00340b (10021924)
585523.90	4135818.38	0.00465b (12122924)	585544.55	4135818.38	0.00584b (12122924)
585565.20	4135818.38	0.00633b (12122924)	585585.85	4135818.38	0.00852b (09071124)
585606.50	4135818.38	0.01048b (09071124)	585627.15	4135818.38	0.01003b (10070524)
585647.80	4135818.38	0.00942c (12072224)	585668.45	4135818.38	0.00841c (12072224)
585255.45	4135832.13	0.00065b (12092024)	585276.10	4135832.13	0.00069b (12092024)
585296.75	4135832.13	0.00073b (12092024)	585317.40	4135832.13	0.00081b (10062624)
585338.05	4135832.13	0.00096b (10062624)	585358.70	4135832.13	0.00113b (10062624)
585379.35	4135832.13	0.00134b (10062624)	585400.00	4135832.13	0.00159b (10062624)
585420.65	4135832.13	0.00186b (10062624)	585441.30	4135832.13	0.00214b (10062624)
585461.95	4135832.13	0.00237b (10062624)	585482.60	4135832.13	0.00250b (10062624)
585503.25	4135832.13	0.00337b (10021924)	585523.90	4135832.13	0.00450b (12122924)
585544.55	4135832.13	0.00622b (12122924)	585565.20	4135832.13	0.00746b (12122924)
585585.85	4135832.13	0.00925b (09071124)	585606.50	4135832.13	0.01243b (09071124)
585627.15	4135832.13	0.01207b (10070524)	585647.80	4135832.13	0.01138c (12072224)
585668.45	4135832.13	0.00976c (12072224)	585255.45	4135845.88	0.00068b (12092024)
585276.10	4135845.88	0.00073b (12092024)	585296.75	4135845.88	0.00078b (12092024)
585317.40	4135845.88	0.00084b (12092024)	585338.05	4135845.88	0.00091b (11062424)
585358.70	4135845.88	0.00102b (10062624)	585379.35	4135845.88	0.00122b (10062624)
585400.00	4135845.88	0.00147b (10062624)	585420.65	4135845.88	0.00178b (10062624)
585441.30	4135845.88	0.00214b (10062624)	585461.95	4135845.88	0.00252b (10062624)
585482.60	4135845.88	0.00287b (10062624)	585503.25	4135845.88	0.00308b (10021924)
585523.90	4135845.88	0.00442b (10021924)	585544.55	4135845.88	0.00627b (12122924)
585565.20	4135845.88	0.00851b (12122924)	585585.85	4135845.88	0.00997b (12081824)
585606.50	4135845.88	0.01486b (09071124)	585627.15	4135845.88	0.01483b (10070524)

**MODELOPTs: NonDFAULT CONC FLAT URBAN

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 , L0000006 , AREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC (YYMMDDHH)
585647.80	4135845.88	0.01407c (12072224)	585668.45	4135845.88	0.01149b (09052824)

**MODELOPTs: NonDFAULT CONC FLAT URBAN

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	HIGH 1ST HIGH VALUE IS	0.05697	ON 10022205: AT (585627.15, 4135845.88, 11.90, 11.90, 0.00)	DC	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

 **MODELOPTs: NonDFAULT CONC   FLAT   URBAN

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF PM_2.5   IN MICROGRAMS/M**3   **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL HIGH	1ST HIGH VALUE IS	0.01486b	ON 09071124: AT (585606.50, 4135845.88, 11.90, 11.90, 0.00)	DC	

 *** RECEPTOR TYPES: GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR

 **MODELOPTs: NonDFAULT CONC   FLAT   URBAN

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of   0 Fatal Error Message(s)
 A Total of   0 Warning Message(s)
 A Total of   15496 Informational Message(s)

 A Total of   43872 Hours Were Processed

 A Total of   14061 Calm Hours Identified

 A Total of   1435 Missing Hours Identified (3.27 Percent)

    ******** FATAL ERROR MESSAGES ********
               *** NONE ***

    ********   WARNING MESSAGES   ********
               *** NONE ***

    ****
    *** AERMOD Finishes Successfully ***
    ****

Appendix C

Nesting Bird Impacts Analysis

Rincon Consultants, Inc.
180 Grand Avenue, Suite 400
Oakland, California 94612
510 834 4455
FAX 834 4433

info@rinconconsultants.com
www.rinconconsultants.com

February 17, 2016
Project Number 15-01689

Roger Bernstein
Oppidan Investment Company
5125 County Road 101
Minnetonka, MN 55345
Via email: roger@Oppidan.com

Subject: Nesting Bird Impacts Analysis for an Online-Ordering Grocery Store Project at 777 Sunnyvale-Saratoga Road, Sunnyvale, CA

Dear Mr. Bernstein:

Rincon Consultants, Inc. (Rincon) is pleased to submit this Nesting Bird Impacts Analysis (NBIA) for the Online-Ordering Grocery Store Project at 777 Sunnyvale-Saratoga Road in Sunnyvale, California, hereinafter referred to as the "project site." The purpose of the NBIA is to support an IS/MND that is currently under public review, and as such it will address potential impacts to nesting birds under CEQA.

PROJECT LOCATION AND DESCRIPTION

The project is located in a commercial plaza adjacent to an Orchard Supply Hardware in the City of Sunnyvale, California. Surrounding land uses consist predominantly of urban commercial and residential areas with urban open space such as Las Palmas Park to the southwest. The proposed project includes an approximately 11,600 square foot building that would be operated as an online take-out grocery store. The project would include demolition of an existing approximately 7,600 square foot lumber pick-up building located on the project site. The project would provide nine parking stalls for customers. Project construction would be conducted within 250 feet of a number of ornamental trees that are present along the margins of the project site. The project has a proposed construction start of May 2016.

METHODOLOGY

Literature Review

Rincon completed a review of the existing conditions at the site to confirm the presence of potential nesting habitat. This impacts assessment was based on a review of available information including applicable regulatory requirements, recent photographs, aerial imagery, site maps, and existing technical reports. In addition, eBird, an online resource documenting public observations of bird occurrences, was reviewed to determine species that are likely to occur in the area (eBird, 2016).

REGULATORY BACKGROUND

Birds are protected at both the federal and state level under the Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code (FGC).

Migratory Bird Treaty Act
The MBTA is a federal law that protects native birds and bird parts. Under the provisions of the MBTA, it is unlawful "by any means or manner to pursue, hunt, take, capture (or) kill" any migratory birds, except as permitted by regulations issued by the U.S. Fish and Wildlife Service (USFWS). The term "take" is defined by USFWS regulation to mean "pursue, hunt, shoot, wound, kill, trap, capture or collect" any migratory bird or any part, nest, or egg of any migratory bird covered by the conventions (a list of approximately 836 species that does not include non-native birds), or to attempt those activities. In the event that a specific cause (for example, health and safety issues) requires removal of an active nest, a take permit may be issued by USFWS after receipt of an application regarding the specific reasons. It should also be noted that the U.S. District Court in North Dakota (United States v. Brigham Oil and Gas, L.P., -- F.Supp.2d --, 2012 WL 120055 [D. N.D. Jan. 17, 2012]) recently ruled that the MBTA does not prohibit otherwise lawful activities that result in unintended deaths or injuries of birds.

California Fish and Game Code
The California FGC also provides protection to native birds, including those listed under the MBTA. CFGC Section 3503 states that "it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto." Per direction received from California Department of Fish and Wildlife (CDFW) (Theresa Vallombroso, Office of General Council, CDFW, February 26, 2008), nests of common species (does not include listed or special status species or raptors) are only protected by CFGC when they are active (i.e. contain eggs or young still dependent on the nest). Raptors (birds-of-prey including falcons, hawks, and owls) are afforded greater protection by CFGC. Section 3503.5 of CFGC states that "it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto."

EXISTING CONDITIONS
The project site is located at 777 Sunnyvale-Saratoga Road in Sunnyvale, California. The site is significantly disturbed and consists entirely of developed areas. Vegetation is limited to ornamental landscaping within developed land. Ornamental landscape has the potential to support disturbance-tolerant bird species that can be found in the vicinity (eBird, 2016) such as house finch, mourning dove, bushtit, Anna's hummingbird, and lesser goldfinch as well as non-native species such as rock dove. Birds such as killdeer, horned lark and mourning dove nest directly on the ground, often in areas of high disturbance. However, ground nesting birds in general nest in areas of low human activity as ground nests are poorly protected. Therefore, the areas within landscaping that could be used by ground nesting species are unlikely to provide suitable nesting habitat because of the level of pedestrian and vehicular traffic in the immediate vicinity. Protected raptors, such as white-tailed

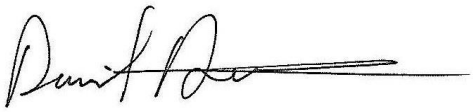
IMPACTS ANALYSIS
Construction activity has the potential to directly and indirectly impact nesting birds. Direct impacts include damage to active nests causing the death or injury to adult, eggs, and/or nestlings. Direct impacts could occur during any potential vegetation removal (if required) or by personnel or equipment coming in direct contact with active nests. Indirect impacts include the abandonment of active nests resulting in the death of eggs or nestlings. Indirect impacts could occur due to increased noise disturbance and human presence within close proximity of an active nest site. However, birds nesting in the vicinity of the project site would be accustomed to high levels of human disturbance

due to its location in a commercial shopping plaza. Therefore, the potential for indirect impacts to nesting birds is low. Indirect or direct impacts to nesting birds that result in the injury or death of adult birds, eggs, and/or nestlings would be considered significant under CEQA.

RECOMMENDATIONS

1. **Preconstruction Surveys and Avoidance Measures for Nesting Birds.** For construction activities occurring during the nesting season (February 1 to September 15), surveys for nesting birds covered by the California Fish and Game Code and the Migratory Bird Treaty Act shall be conducted by a qualified biologist not more than 14 days prior to vegetation removal and ground disturbance. The surveys shall include the entire project disturbance area plus a 250-foot buffer where access is feasible. If active nests are located, an avoidance buffer shall be established by the qualified biologist. No construction activity shall be allowed within the avoidance buffer until the nestlings have fledged or the nest has otherwise become inactive through natural processes. The avoidance buffer shall be established by the qualified biologist based on the species and site conditions. Typical avoidance buffers within urban areas range from a minimum of 25 feet for non-raptor (passerine) bird species up to 250 feet for common raptor species. Avoidance buffers could be reduced in size in consultation with the qualified biologist. A qualified biologist shall confirm that breeding/nesting is completed and young have fledged the nest prior to removal of the buffer.

Sincerely,
RINCON CONSULTANTS, INC.



David Daitch, Ph.D.
Program Manager/Senior Biologist

Attachments: Figure 1 – Project Location

REFERENCES

eBird. 2016. An online database of bird distribution and abundance. Available at: http://www.ebird.org.

Google. 2015. Google Earth Pro. Available at: http://earth.google.com/

Imagery provided by Google and its licensors © 2016.

Project Location

Figure 1

Appendix D

Phase I Environmental Assessment

MOORE TWINING ASSOCIATES, INC.

May 24, 2016 E82616.08

Mr. Roger Bernstein
Oppidan
6450 Via Del Oro
San Jose, California 95119

RE: Phase 1 Follow-Up – Business Risks
777 Sunnyvale Saratoga Road
Sunnyvale, California

Dear Mr. Bernstein:

In accordance with your request, Moore Twining Associates, Inc. (Moore Twining) is supplementing the Phase I Environmental Site Assessment (Phase I ESA) report dated June 22, 2015 that was prepared by our firm for the warehouse and parking lot located at 777 Sunnyvale Saratoga Road in Sunnyvale, California.

PHASE I ESA FINDING OF NO RECOGNIZED ENVIRONMENTAL CONDITIONS

As you know, the Phase I ESA revealed no evidence of recognized environmental conditions (RECs), controlled recognized environmental conditions (CRECs) or historical recognized environmental conditions (HRECs) in connection with the site.

The finding of no RECs, CRECs or HRECs is important, since these would represent conditions that would fall under Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) liability, and often would immediately impact the environment and potentially human health.. The standard for the Phase 1 ESA (ASTM E1527-13) establishes the purpose of a Phase 1 as ensuring that good commercial and customary practice is employed to protect the user of the Phase 1 ESA from CERCLA liability:

> The purpose of this practice is to define good commercial and customary practice in the United States of America for conducting an environmental site assessment of a parcel of commercial real estate with respect to the range of contaminants within the scope of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (42 U.S.C. §9601) and petroleum products.

This good commercial and customary practice standard is designed to identify whether significant risks are present. ASTM E1527-13 describes and defines a recognized environmental condition as:

> In defining a standard of good commercial and customary practice for conducting an environmental site assessment of a parcel of property, the goal of the processes established by this practice is to identify recognized environmental conditions. The term recognized environmental conditions means the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. De minimis conditions are not recognized environmental conditions.

Accordingly, the finding of no recognized environmental conditions means there are no significant risks of contamination that would fall under CERCLA liability. Because we found no evidence of any of such conditions, we found no cause to initiate a Phase II investigation and we did not recommend that any additional soils testing is needed. In this circumstance, the preparation of our Phase I ESA would ordinarily represent the conclusion of our investigation.

POTENTIAL BUSINESS ISSUE RELATED TO AGRICULTURAL USE

You have asked for additional information regarding one of the business issues we identified. Business Environmental Risk Considerations (BERCs) do not represent a significant risk of contamination from the hazardous chemicals and/or wastes listed under CERCLA. Rather, they represent issues that a client may, as a business matter, wish to investigate further. The Phase I ESA for this property identified the following BERC:

> A review of historical documentation indicates that the Site was occupied by an orchard from at least the late 1930s to the late 1960s. Therefore, there is a potential that environmentally persistent pesticides were applied to the Site during this time. Because the Site is reported to have been commercially developed since at least the early 1970s, the current potential impact to the Site from these pesticides appears to be low. However, it should be noted that on-Site soils containing residual concentrations of these pesticides would potentially require special handling or permitting if disposed of off the Site.

This BERC does not present an immediate significant hazard to the public or the environment, for several reasons. First, the pesticide application that took place was prior to any large development in the area, and spanned across multiple properties in the area. The majority of the Site has been paved, which removes the major exposure pathway. Risk of contamination of groundwater and stormwater is limited, as the pavement and buildings prevent infiltration and runoff. The historical agricultural use of

the Site and the associated checmical usage does not represent an REC but rather a BERC due to the legal application of pesticides being exempt from CERCLA liability, as defined in the United States Health and Welfare Code Title 42, Chapter 103 (CERCLA), Subchapter I, Section 9607 (Liability), subsection (i).

Second, Moore Twining has performed multiple studies on historical agricultural land, with only a low percentage of these studies having concentrations of constituents of concern at levels above human health risk-based screening levels (RBSLs). The sole exception is arsenic, which commonly occurs naturally in California soils at levels above RBSLs. Common exposure pathways for these pesticides and heavy metals are inhalation and ingestion. The risk involved with regards to human health is for workers who will be interacting with the soil, whether tactilely or by breathing dust.
Third, the area subject to disturbance is a small portion of the project site, with the disturbed area comprising only 1.56 acres. This is a small project with a correspondingly small potential for disturbing soils.

Fourth, much of the site was previously disturbed by agricultural uses and prior development. While we do not have specific information about the agricultural practices undertaken at the site, it is common at an agricultural site for the ground to have been tilled and disked, disturbing approximately the top two feet of soil. Similarly, while we do not have the specifics regarding prior development of the site, we did observe that the site is currently developed with structures and a parking lot, which means soils must have been disturbed during prior development. It is standard industry practice to remove all organic matter on the surface, to reach soil that is suitable for construction, which often results in removal of four to six inches of topsoil. Accordingly, the only areas where previously undisturbed soil is likely to be encountered is in the areas where grading activities will be conducted below the elevations disturbed previously. While it is possible that prior disturbance simply redistributed impacted soil, it is likely that at least some, if not most, of the contaminants that were present (if any) were already removed during the prior development.

Fifth, according to the Initial Study that was previously published for this Project, the Project will be subject to the best management practices dictated by BAAQMD for dust control and by the State Water Resources Board for stormwater protection. These measures will help ensure that contamination at the site (if any) would not be disbursed into the air or released to stormdrains, but would instead either remain on the ground to be covered by new development, or hauled off site. Oppidan advises that the amount of off-haul is projected to be only approximately 1,200 cubic yards, which is projected to fill forty hauling trucks. This is a relatively minor amount of off-haul, which further minimizes the potential for contaminated soil (if any) to affect any offsite people or places.

Finally, as explained in our Phase I ESA, even if pesticide contamination is present, it would not mean that the public or the environment would be harmed. Instead, as noted in the description of this BERC quoted above, it would mean only that special handling would potentially be required during soil disturbance and during disposal, if required. Oppidan confirmed to us that standard industry practices will be used to address the potential that these actions would be needed. Oppidan will retain a licensed contractor to conduct the grading. The contractor will employ standard industry practices used as if pesticide and metal contamination was present in soil. In addition to the dust control measures

previously mentioned, health and safety protocols would be maintained to assure that worker safety is priority. Workers will be required to wear gloves when handling soil, and will be required to wash their hands prior to eating. Soils that are to be off-hauled will be stockpiled and sampled prior to removal.

SOIL SAMPLING PROTOCOL

You have asked us to explain what activities would need to be undertaken to sample the stockpiles for disposal profiling. The following is a general protocol for soil sampling for pesticide and metals sampling purposes.

The location and quantity of sample locations depends upon the size of the stockpile, and is determined either in the field, or prior to going into the field. Soil samples are collected in 1.5-inch by 6-inch stainless steel sleeves, using a slide hammer fitted with a sampling spoon or a wooden mallet. Samples are collected from the stockpile from a depth of 0 to 0.5 feet below surface grade (bsg).

The steel sleeves are covered with Teflon sheets and capped with plastic caps and the sample identification, date, time and sampler's initials are permanently marked on the sample container. Following collection, the soil samples are placed in a properly cooled ice chest or similar container for temporary storage and delivery under standard chain-of-custody protocols to Moore Twining's California Hazardous Waste Certified laboratory for analysis.

Soil samples are analyzed for organochlorinated pesticides (OCPs) by EPA Method 8081 and for CAM 17 Metals by EPA Method 6010. Metals are a requirement for disposal purposes.

HANDLING AND DISPOSAL OF SOILS

Handling

If soils contain COCs at concentrations over the California Human Health Screening Levels (CHHSLs), provided by the California Environmental Protection Agency (Cal EPA), special handling procedures may be required. An updated 2010 list of the Cal EPA CHHSLs can be found on the Cal EPA website at http://oehha.ca.gov/risk/chhsltable.html. This may include, but is not limited to, the use of dust masks during construction, dust control, and stockpile covering.

Disposal

Waste soils that contain COCs at concentrations over the Soluble Threshold Limit Concentration (STLC) and Total Threshold Limit Concentration (TTLC) Regulatory Limits (defined by the California Code of Regulations Title 22) are considered hazardous waste and require special handling and disposal. The requirements of hauling hazardous wastes can vary depending on the regulatory agencies such as the associated city, county, or Air Quality Board District. Generally, soils with COCs that are going to be off-hauled are stockpiled on Visqueen, transferred to a truck, and hauled to the nearest accepting waste facility. In the case of this Site, the two facilities currently accepting wastes would be:

Altamont Landfill – 50 Miles from the Site
Non-Hazardous soil with COC concentrations that do not allow re-use.
840 Altamont Pass Road
Livermore, CA 94551

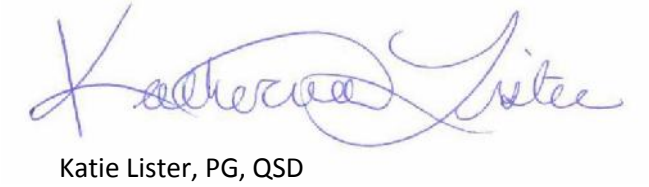
Kettleman Hills Landfill – 175 Miles from the Site
Hazardous Levels of COCs
35251 Old Skyline Road
Kettleman City, CA 93239

CLOSING

In sum, no recognized environmental conditions have been identified at the Project site, and we have not recommended additional investigation or testing, or a Phase II study with regards to a REC. The risk that pesticide residue remains at the site appears low, and does not present a significant risk of immediate harm to the public or the environment. Standard industry practices will be used to address that potential. Further, even if that low risk were realized, standard protocols and practices, and applicable laws and regulations, would ensure that materials are handled appropriately. Thank you for the opportunity to assist you on this project. If you have questions, please contact our office.

Sincerely,

MOORE TWINING ASSOCIATES, INC.
Environmental Services Division



Katie Lister, PG, QSD
Phase 1 and Phase 2 Manager

MOORE TWINING ASSOCIATES, INC.

PHASE I ENVIRONMENTAL SITE ASSESSMENT

GREEN GROCERY, LLC

777 SUNNYVALE SARATOGA ROAD

SUNNYVALE, CALIFORNIA

Prepared For:

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San Jose, California 95119

Prepared By:

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June 22, 2015

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ACRONYMS

AST(s)	Aboveground Storage Tank(s)
AWP	Annual Work Plan
CAL-EPA	State of California, Environmental Protection Agency
CERCLIS	Comprehensive Environmental Responsibility, Compensation, and Liability Information System
CIWMB	California Integrated Waste Management Board
CSFP	City of Sunnyvale Fire Prevention
DTSC	Department of Toxic Substances Control
ERNS	Emergency Response and Notification System
LUST	Leaking Underground Storage Tank
NPL	National Priority List
RCRA	Resource Conservation and Recovery Act
SCCEHD	Santa Clara County Environmental Health Department
SWIS	Solid Waste Information System
SWRCB	State Water Resource Control Board
TSD	Hazardous Waste Transport, Storage, or Disposal Facilities
US EPA	United States Environmental Protection Agency
UST(s)	Underground Storage Tanks(s)

1.0 INTRODUCTION

Moore Twining Associates, Inc. (Moore Twining) was retained by Green Grocery, LLC (Client) to conduct a Phase I Environmental Site Assessment (Phase I ESA) for the property located at 777 Sunnyvale Saratoga Road, in the City of Sunnyvale and County of Santa Clara, California. This Phase I ESA was conducted in general conformance with the methods and procedures described in the American Society for Testing and Materials (ASTM) "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process" (Standard Designation E 1527-13), published November 2013, and in accordance with Moore Twining's proposal to the Client, dated May 5, 2015. It is our understanding that this Phase I ESA was requested to assist the Client in their due diligence.

1.1 Objective

The objective of this assessment was to identify recognized environmental conditions located on the Site or adjacent properties which could present material risk of harm to public health or to the environment. Recognized environmental conditions (RECs) are defined in ASTM Designation E 1527-13 as the presence or likely presence of any hazardous wastes and/or 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.

1.2 Scope of Services

This Phase I ESA was performed to evaluate the potential presence of environmental conditions that may have resulted from operations at the Site or at nearby properties. The assessment included a Site reconnaissance, review of available documentation of land-use history for evidence of the use, storage and/or disposal of hazardous substances, and a review of available regulatory information. This Phase I ESA included the following tasks:

- A review of the current and past uses of the Site since 1899;
- A Site reconnaissance to assess evidence of current and/or past use or storage of toxic or hazardous materials; on-Site ponds, landfills, drywells, waste streams or other disposal units; visible soil discoloration; aboveground or underground storage tanks; electrical transformers containing polychlorinated biphenyls (PCBs); and drums, barrels and other storage containers;
- Visual observation of adjacent properties to evaluate the potential impact to the Site posed by current and/or historical operations at the adjacent properties;
- A review of available federal Environmental Protection Agency (EPA), state EPA and regulatory agency lists of known or potential hazardous waste sites or landfills, and sites currently under investigation for environmental violations in

the Site area. Using area-profile services provided by Environmental Data Resources, Inc. (EDR), properties in the vicinity of the Site that have been identified on regulatory agency lists were cataloged. Search criteria were in conformance with ASTM Standard E 1527-013;

- Contact with relevant municipal, county and state agencies to review readily available records and permits; and

- Preparation of this report to present our methods, findings and conclusions.

The Scope of Services specifically excluded cultural, archeological, and biological assessments, as well as assessments for hazardous building materials or radon gas. In addition, the Scope of Services did not include the collection and/or analysis of air, soil-gas, soil, groundwater, or other environmental samples.

1.3 Limitations and Limited Conditions

The purpose of an environmental assessment is to reasonably assess the potential for, or actual impact of, past practices on a given site which may pose an environmental impairment to the Site. No assessment is thorough enough to identify all potential environmental impairments at a given site. If environmental impairments have not been identified during the assessment, such a finding should not, therefore, be construed as a guarantee of the absence of such conditions on the Site, but rather the result of the services performed within the scope, limitations, and cost of the work performed.

The conclusions presented in this report are solely professional opinions based on information provided regarding the Site and the findings of the reconnaissance and records search. Information obtained from the aerial photographs is an interpretation of features observed in the photographs. Actual conditions at the Site may have been different from those interpreted. Conclusions presented are based on conditions as they existed at the time the work was performed. Changes in existing conditions of the Site due to time lapse, natural causes, or operations adjacent to the Site may deem conclusions presented in this Phase I ESA report invalid, unless the changes are reviewed and the conclusions reevaluated. Such conditions may require additional site reconnaissance, and require field exploration and laboratory testing to assess if the conclusions are applicable considering the changed conditions.

This work was performed for the sole use of our client. Any reliance on this report by a third party is at such party's sole risk. Others who seek to rely on the findings have a duty to determine the adequacy of this report for their intended use, time, and location. Moore Twining does not warrant the accuracy of information supplied by others, or the use of segregated portions of this report. No other warranty, either expressed or implied, is made. The standard of Practice is time-dependent. Services provided were performed consistent with generally-accepted professional consulting principles and practices for environmental assessors in Santa Clara County, California at the time this work was performed. The findings and conclusions presented

in this report are solely professional opinions derived in accordance with current standards of professional practice.

2.0 SITE DESCRIPTION

Information concerning the Site was obtained from interviews, a Site reconnaissance, and a review of the documents referenced in Section 4.0 of this report. The Site reconnaissance was conducted by Mr. Philip Marquez, a Moore Twining representative, on June 18, 2015.

2.1 Location and Description of Property

The Site is a rectangular-shaped parcel comprising approximately 0.5 acres. The Site is located in the eastern portion of 777 Sunnyvale Saratoga Road in the City of Sunnyvale and County of Santa Clara, California. One (1) warehouse building, comprising approximately 6,200 square feet, occupies the central portion of the Site. A concrete-paved storage area is observed east and west of the warehouse building. This area is used to store outdoor and garden supplies. The remaining portions appear as asphalt pavement and associated landscaping. This parcel has been assigned Santa Clara County Assessor's Parcel Number (APN) 201-36-002. The listed owner for the Site is:

Mardit Properties
PO Box 2098
Saratoga, California 95070

A Site location map is presented as Drawing 1, and a Site plan, which includes Site boundaries, is presented as Drawing 2 in Appendix A.

2.2 Physical and Environmental Setting of the Site

Environmental characteristics including topography, geology, soil, and hydrogeology were evaluated based on Site observations, and review of published literature and maps.

Topography

Topographic map coverage of the Site is provided by the United States Geological Survey (USGS), Cupertino, California, 7.5-minute quadrangle map dated 1991. The Site lies within Section 36, Township 6 South, Range 2 West. According to the map, the Site is located at an elevation of approximately 125 feet above mean sea level.

Geology

The Site is located within the Santa Cruz Mountains portion of the Coast Range. The Coast Range stretches from the Eastern Ranges, located near the Oregon border, to the San Rafael Mountains, which adjoins the Transverse Range Province in Santa Barbara County. The Santa

Cruz Mountains portion extends from the San Francisco Peninsula to the Pajaro River (approximately 80 miles south). Most of the range is developed on the Salinian block with the southern portion being about equally divided between the Salinian and Franciscan blocks. Numerous faults parallel the range or slice obliquely across it. Tertiary marine strata are present throughout the range and possess an aggregate thickness of more than 22,000 feet. Considerable tectonic activity is suggested by the nature and distribution of the Tertiary marine strata as some beds were deposited on land and others in deep marine waters (Norris and Webb, 1976).

Soils

According to information obtained from the USDA Natural Resource Conservation Service (NRCS), soils at the Site are classified as Urban land-Elpaloalto complex. This soil is typically found on alluvial fans and was formed from alluvium derived from metamorphic and sedimentary rock. This soil is well drained and has a low runoff.

Hydrogeology

According to information obtained from the State Water Resources Control Board (SWRCB) and the California Department of Water Resources (CDWR), the depth to first encountered groundwater in the vicinity of the Site is estimated to be approximately 45 feet below grade. Groundwater flow appears to vary from the northeast to the northwest.

3.0 INFORMATION FROM THE SITE RECONNAISSANCE

The objective of the Site reconnaissance was to observe the Site for specific indicators of environmental concern. The Site reconnaissance included a systematic search of practically accessible areas of the Site and adjacent properties. A Site Plan depicting the Site, adjoining property use, and observed on-Site features is presented as Drawing 2 in Appendix A. Additionally, photographs were taken during the Site walk, and selected photographs of the Site are presented in Appendix B.

The Site reconnaissance was conducted on June 18, 2015 by Mr. Philip Marquez, a representative of Moore Twining. The findings of the Site reconnaissance are summarized in the following subsections.

3.1 Site Reconnaissance - Description of Structures, Roads, and Other Site Improvements

The Site is a rectangular-shaped parcel comprising approximately 0.5 acres. The Site is located in the eastern portion of 777 Sunnyvale Saratoga Road in the City of Sunnyvale and County of Santa Clara, California. One (1) single story warehouse building, comprising approximately 6,200 square feet in plan dimension, occupies the central portion of the Site. A concrete-paved storage area was observed east and west of the warehouse building. This area is used to store

outdoor and garden supplies. The remaining portions appear as asphalt pavement and associated landscaping.

3.2 Current Uses of the Site

The Site is currently used as a building materials "Pick Up" area for the adjacent Orchard Supply Hardware store.

3.3 Current Uses of the Adjoining Properties

Commercial development is located north of the Site. An asphalt-paved parking area and commercial development exist south of the Site. Sunnyvale Saratoga Road borders the eastern portion of the Site, beyond which is commercial property. Commercial development exists west of the Site.

3.4 Site Reconnaissance - Specific Indicators of Environmental Concern

In addition to the general description of the Site, the following specific indicators of environmental concern were also evaluated for the Site.

Hazardous Substances and Wastes

Numerous 50 pound bags of fertilizers were observed on several metal shelving units inside and outside the warehouse building. No staining, leakage or odors were noted with any of the bags on the day of Moore Twining's Site reconnaissance.

Numerous 5-gallon cans of paint and water-proofing were observed on a metal shelving unit inside the warehouse building. No staining, leakage or odors were noted with any of the cans on the day of Moore Twining's Site reconnaissance.

Several 5-gallon containers of propane gas were observed near the outside western wall of the warehouse building. No staining, leakage or odors were noted with any of the bags on the day of Moore Twining's Site reconnaissance.

Drums

No drums were observed at the Site on the day of Moore Twining's Site reconnaissance.

Potential Polychlorinatedbiphenyl (PCB) - Containing Equipment

Four (4) pad-mounted transformers were observed in the northeastern portion of the Site. The transformers were owned and operated by the Pacific Gas and Electric Company (PG&E) and appeared to be in good operating condition on the day of Moore Twining's Site reconnaissance. No staining, leakage or odors were noted at the transformers.

One (1) pad-mounted transformer was observed just west of the warehouse building. The transformers were owned and operated by the Pacific Gas and Electric Company (PG&E) and appeared to be in good operating condition on the day of Moore Twining's Site reconnaissance. No staining, leakage or odors were noted at the transformer.

Solid Waste

Solid waste appeared to be limited primarily to trash placed in several trash cans observed inside and outside the warehouse building. No leakage or staining was noted with any of the trash cans on the day of Moore Twining's Site reconnaissance.

Drains and Sumps

One (1) storm drain was located in the western portion of the Site, just west of the warehouse building. No evidence of pouring, dumping or leakage of hazardous materials and/or petroleum products was observed around the drain on the day of Moore Twining's Site reconnaissance.

Other Containers

No other containers were observed on the day of Moore Twining's Site reconnaissance.

Wastewater

Sewer services for the Site are reportedly provided by the City of Sunnyvale.

Water Wells

No water wells were observed at the Site.

Oil and Gas Wells

No oil or gas wells were identified during the Site reconnaissance or shown on California Department of Conservation - Division of Oil and Gas maps reviewed as a part of this assessment.

Pits, Ponds, and Lagoons

No pits, ponds or lagoons were observed at the Site on the day of Moore Twining's Site reconnaissance.

Underground/Aboveground Storage Tanks

No evidence of underground storage tanks (USTs) was observed on the day of Moore Twining's Site reconnaissance.

Other Physical Evidence of Contamination

Some light surface staining was observed throughout the asphalt-paved parking areas. This staining is believed to be associated with the parking of vehicles and would likely be considered a *de minimis* condition under ASTM Guidelines.

4.0 HISTORICAL AND CURRENT INFORMATION ON THE PROPERTY AND ADJOINING PROPERTIES

The history of land-use on and near the Site was determined from interviews, and review of historic aerial photographs, topographic maps, Sanborn maps, building permits, and historic city directories.

4.1 Aerial Photograph Review

Available historical aerial photographs of the Site and vicinity for the years 1939, 1948, 1950, 1956, 1968, 1974, 1982, 1991, 1998, 2005, 2006, 2009, 2010 and 2012 were reviewed for indications of past Site use and/or Site activities which may have involved the manufacture, generation, use, storage, and/or disposal of hazardous materials. Aerial photographs for this assessment were provided by EDR.

1939

The Site appears primarily as an orchard. Two (2) shed-like structures are noted in the southeastern portion of the Site.

An orchard and light commercial development are observed north of the Site. An orchard and rural residential development are noted south of the Site. Sunnyvale Saratoga Road borders the eastern portion of the Site, beyond which is an orchard.

1948-1956

The Site and adjacent properties appear primarily unchanged from the 1939 aerial photograph, with the exception that additional rural residential development is observed south of the Site.

1968

The previously noted shed-like structures are still observed in the southeastern portion of the Site. The remaining portions appear as an orchard.

Commercial development is noted north of the Site. An orchard and rural residential development are observed south of the Site, beyond which is Mathilda Avenue. Sunnyvale Saratoga Road borders the eastern portion of the Site, beyond which is commercial development. An orchard is observed west of the Site.

1974

One (1) warehouse building is depicted in the central portion of the Site. Concrete paved storage areas are depicted east and west of the warehouse building. The remaining portions appear as an asphalt-paved parking area.

Commercial development is depicted north of the Site. Rural residential development and Mathilda Avenue are depicted south of the Site. Sunnyvale Saratoga Road borders the eastern edge of the Site, beyond which is commercial development. Commercial development and an asphalt-paved parking area are observed west of the site.

1982-2012

The Site and adjacent properties appear primarily unchanged from the 1974 aerial photograph, with the exception that commercial development is noted south of the Site after 1982.

4.2 Historical Topographic Maps

Available historical topographic maps of the Site and vicinity for the years 1899, 1943, 1948, 1953, 1961, 1968 1973, 1980 and 1991 were reviewed for indications of past Site use and/or Site activities which may have involved the manufacture, generation, use, storage, and/or disposal of hazardous materials. Historical topographic maps were provided by EDR.

1899

The Site appears as vacant property. No structures are depicted on the Site.

Vacant property and three (3) shed-like structures are depicted north of the Site. Vacant property, two (2) shed-like structures and a dirt road are depicted south of the Site. Sunnyvale Saratoga Road appears to border the eastern edge of the Site, beyond which is vacant property. Vacant property is also observed west of the Site.

1943

Three (3) shed-like structures are depicted in the southeastern portion of the Site. The remaining portions appear as vacant property.

Adjacent properties appear primarily unchanged from the 1899 topographic map.

1948

Several shed-like structures are depicted in the southeastern portion of the Site. The remaining portions appear as an orchard.

Several shed-like structures and orchard are depicted north and south of the Site. Sunnyvale Saratoga Road borders the eastern portion of the Site, beyond which are several shed-like structures and an orchard. An orchard is also depicted west of the Site.

1953

Several shed-like structures are observed in the southeastern portion of the Site. The remaining portions are depicted as an orchard.

An orchard and electrical transmission lines are depicted north of the Site. An orchard is depicted south of the Site, beyond which is residential development. Sunnyvale Saratoga Road borders the eastern edge of the Site, beyond which is one (1) shed-like structure and an orchard. An orchard is noted west of the Site.

1961

The Site and adjacent properties appear mostly unchanged from the 1953 topographic map, with the exception that an orchard and commercial development are depicted east of Sunnyvale Saratoga Road.

1968

Two (2) shed-like structures are noted in the southeastern portion of the Site. The remaining portions are an orchard.

An orchard and electrical transmission lines are noted north of the Site, beyond which is commercial development. An orchard, one (1) shed-like structure and Mathilda Avenue are depicted south of the Site. Commercial development is depicted east of Sunnyvale Saratoga Road. An orchard and Mathilda Avenue are noted west of the Site.

1973

One (1) structure is depicted in the central portion of the Site. The remaining portions are depicted as an orchard.

Commercial development, an orchard and electrical transmission lines are depicted north of the Site. Adjacent properties to the south and east appear primarily unchanged from the 1968 topographic map. Commercial development and an orchard are depicted west of the Site, beyond which is Mathilda Avenue.

1980-1991

The Site and adjacent properties appear primarily unchanged from the 1973 topographic map, with the exception that the orchard is no longer depicted west of the Site in the 1991 topographic map.

4.3 Sanborn Fire Insurance Map Review

Sanborn Fire Insurance Maps provided by EDR were reviewed. Sanborn Maps can provide historical information regarding a property.

- No Sanborn Map coverage was available for the Site and adjacent properties.

4.4 Historical City Directory Review

City directories can provide information concerning past and current occupancy of the Site and adjacent areas. City directory information for this assessment was provided by EDR. Reviewed years were between 1922 and 2013. The information provided by this source is summarized below.

777 Sunnyvale Saratoga Road

- 1922-1985: No Listings
- 1986-2013: Orchard Supply Hardware Store

4.5 Building Permits

Building records can provide a history of on-Site structures, features, and development. Building permit information was provided by Environmental Data Resources, Incorporated (EDR) for this assessment. Relevant information provided by this source is summarized below.

777 Sunnyvale Saratoga Road

- Electrical Permit # 19940685: For the installation of a new wall sign, issued to Cal Neon Signs, dated March 1, 1994.
- Building Permit # 19990440: For a re-roofing, issued to Mid-Peninsula Roofing, Inc., dated February 10, 1999.
- Building Permit # 20041637: For a re-roofing, issued to Mid-Peninsula Roofing, Inc., dated May 20, 2004.
- Electrical Permit # 20071462: For relocation and addition wire molding for existing light displays, issued to Best Electric, dated April 20, 2007.

- Electrical Permit # 20120837: For installation of two LED Wall Signs, issued to Ad Art, Incorporated, dated March 14, 2012.

4.6 User Provided Information

This section summarizes information provided by the user that assisted in the identification of potential RECs associated with the subject Site.

4.6.1 Interviews with Site Representatives

Moore Twining submitted an Environmental Questionnaire to the Client as part of this assessment. A completed environmental questionnaire was filled out by Mr. Brad Potestio of Oppidan (Construction Manager). A summary of provided information is presented below. A copy of the questionnaire is included as Appendix F.

- ***Brad Potestio of Oppidan (Construction Manager)***

  According to Mr. Potestio, the Site is currently occupied by an "Orchard Supply" hardware store. Mr. Potestio was unaware of any storage and/or generation of agricultural chemicals, petroleum products or other hazardous materials occurring at the Site. Mr. Potestio was also unaware of any existing or previously existing underground or aboveground storage tanks at the Site. To the best of Mr. Potestio's knowledge, no waste treatment processing or recycling is conducted at the Site, nor was Mr. Potestio aware of any septic systems or wells at the Site. Mr. Potestio had no knowledge of any environmental cleanup liens being filed or recorded against the Site, nor was he aware of any activity and/or land use limitations in place at the Site. Mr. Potestio had no specialized knowledge related to the site or adjacent properties. Mr. Potestio was also unaware of any commonly known or reasonably ascertainable information about the Site that would help the environmental professional to identify conditions indicative of a release or threatened release. Mr. Potestio also noted that the Purchase Price being paid for the Site reasonably reflected fair market value.

4.6.2 Previous Investigations

- No reports of previous investigations were provided as part of this assessment.

4.6.3 Title Documentation

Title documents, including a chain of title and/or title report, can provide the environmental professional with information regarding current and past ownership and information regarding environmental liens and/or land use and activity limitations. A copy of the preliminary title report was provided by the client. A Copy of the report is included in Appendix G.

- No information regarding environmental liens or land use/activity limitations was found as part of our firm's review of provided title documents.

4.7 Past Uses of the Property

The Site appears to have been vacant property or used for an orchard from at least 1899 to the late 1960s. Two shed-like structures were observed in the southeastern portion of the Site from at least 1939 to the late 1960s. The existing structure on the Site appears to have been constructed in the early 1970s.

4.8 Past Uses of Adjoining Property

Adjacent properties were primarily vacant property or orchards from at least 1899 to the 1950s. Commercial development was first noted north of the Site in the late 1950s. Commercial development was first observed east of Sunnyvale Saratoga Road in the late 1960s. Commercial development was also first observed west of the Site in the early 1970s.

5.0 RECORDS REVIEW

Moore Twining contracted EDR to perform searches of available federal, state, and local database information systems for the purpose of identifying known recognized environmental conditions present on the Site and nearby properties which have the potential to adversely impact the Site being assessed in this study. EDR's findings are summarized below. The complete report furnished by EDR is included in Appendix C of the report.

TABLE 1
SUMMARY OF REGULATORY LISTS SEARCHED BY EDR AND RECORDS REVIEWED*

Database	Target Site	Search Distance (Miles)	< 1/8	1/8 - ¼	1/4 - ½	½ - 1	> 1	Total Plotted
FEDERAL ASTM STANDARD								
NPL		1	0	0	0	1	NR	1
Proposed NPL		1	0	0	0	0	NR	0
CERCLIS		0.5	0	0	0	NR	NR	0
CERC-NFRAP		0.5	0	0	0	NR	NR	0
CORRACTS		1	0	0	0	0	NR	0
RCRA-TSDF		0.5	0	0	0	NR	NR	0
RCRA LQG		0.25	0	1	NR	NR	NR	1
RCRA SQG		0.25	1	5	NR	NR	NR	6
ERNS		TP	NR	NR	NR	NR	NR	0
STATE ASTM STANDARD								
HWP		1	0	0	0	0	NR	0
ENVIROSTOR		1	0	0	1	3	NR	4
CHMIRS		TP	NR	NR	NR	NR	NR	0
HIST CORTESE		0.5	0	0	0	NR	NR	0
Notify 65		1	0	0	0	0	NR	0
Toxic Pits		1	0	0	0	0	NR	0
SWF/LF		0.5	0	0	0	NR	NR	0
WMUDS/SWAT		0.5	0	0	0	NR	NR	0
LUST		0.5	1	0	14	NR	NR	15
CA BOND EXP. PLAN		1	0	0	0	1	NR	1
UST		0.25	0	0	NR	NR	NR	0
VCP		0.5	0	0	0	NR	NR	0
INDIAN UST		0.25	0	0	NR	NR	NR	0
INDIAN LUST		0.5	0	0	0	NR	NR	0
CA FID UST		0.25	0	0	NR	NR	NR	0
HIST UST		0.25	0	2	NR	NR	NR	2

NR = Not Requested (Beyond Search Distance)
TP = Target Property
* = Table includes only databases and search distances required for ASTM Practice E 1527-13 compliance. Other databases are included in the EDR report and discussed in the following sections as appropriate.

5.1 Facilities Identified in the Regulatory Lists and Record Review

The information regarding the following facilities was obtained from the EDR report. Requests to review files for the Site and adjacent properties were also submitted to the Santa Clara County Environmental Health Department (SCCEHD), City of Sunnyvale Fire Prevention (CSFP), State Water Resources Control Board (SWRCB), and the Department of Toxic Substance Control (DTSC). Additional information pertaining to the Site and adjacent properties was reviewed on the SWRCB's "Geotracker" and the DTSC's "Envirostor" websites. Available information for the Site and adjacent properties was reviewed on June 19, 2015. Copies of available files are included in Appendix D.

On-Site

777 Sunnyvale Saratoga Road

The on-Site address of 777 Sunnyvale Saratoga Road appears on the HAZNET and EMI databases due to its status as a hazardous materials generation and/or storage facility. According to information obtained from the EDR report and the current Hazardous Material Management Plan (HMMP) provided by the CSFP (dated February 25, 2105), materials stored at this address include aged or surplus organics, an unspecified solvent mixture and latex waste. According to the provided HMMP, these materials are disposed of by PSC Waste Disposal. No documentation regarding spills, releases, incidents or violations are reported for 777 Sunnyvale Saratoga Road. In addition, no evidence of any spills, releases or incidents was encountered during this assessment.

Off-Site

Former Firestone Tire, located at 112 E. El Camino Real, approximately 350 feet northeast of the Site (incorrectly plotted by EDR as being 607 feet northeast of the Site), appears on the LUST database due to its status as a closed leaking UST incident. According to the EDR report and the SCCEHD, the released was discovered in May of 2009. The release material was motor oil and is reported to have only impacted soils. Remedial activity is reported to have included soil excavation and removal of impacted soils. The SCCEHD issued closure for the release in a letter dated February 11, 2010. Because the release is reported to have been limited to soils at the facility, and because the SCCEHD has issued closure, the current potential impact to the Site from this facility appears to be low.

Due to the reported distance, and/or direction of groundwater flow, the current potential environmental impact to the Site from the remaining listed facilities appears to be low.

5.2 Institutional and Engineering Controls/Land Use Limitations/Environmental Liens

Information regarding institutional and engineering controls was obtained from the EDR report, interviews with property owners, and Moore Twining's Site reconnaissance. Institutional and

Engineering Controls can indicate the current and/or historical presence of recognized environmental conditions that required remedial activity at the Site.

- No institutional and engineering controls, land use limitations or environmental liens related to remediation and/or cleanup were found as part of this assessment.

6.0 SUMMARY OF FINDINGS

The findings of the Phase I ESA are summarized in the following sections:

6.1 On-Site

The Site appears to have been vacant property or used for an orchard from at least 1899 to the late 1960s. Two shed-like structures were observed in the southeastern portion of the Site from at least 1939 to the late 1960s. The existing structure on the Site appears to have been constructed in the early 1970s.

- The on-Site address of 777 Sunnyvale Saratoga Road appears on the HAZNET and EMI databases due to its status as a hazardous materials generation and/or storage facility. According to information obtained from the EDR report and the current Hazardous Material Management Plan (HMMP) provided by the CSFP (dated February 25, 2105), materials stored at this address include aged or surplus organics, an unspecified solvent mixture and latex waste. According to the provided HMMP, these materials are disposed of by PSC Waste Disposal. No documentation regarding spills, releases, incidents or violations are reported for 777 Sunnyvale Saratoga Road. In addition, no evidence of any spills, releases or incidents was found during this assessment.

- Numerous 50 pound bags of fertilizers, 5-gallon cans of paint and water-proofing, and several 5-gallon containers of propane gas were observed on several metal shelving units inside and outside the warehouse building. No staining, leakage or odors were noted with any of these materials on the day of Moore Twining's Site reconnaissance.
- Four (4) pad-mounted transformers were observed in the northeastern portion of the Site. The transformers were owned and operated by the Pacific Gas and Electric Company (PG&E) and appeared to be in good operating condition on the day of Moore Twining's Site reconnaissance. No staining, leakage or odors were noted.

- One (1) pad-mounted transformer was observed just west of the warehouse building. The transformers were owned and operated by the Pacific Gas and Electric Company (PG&E) and appeared to be in good operating condition on the day of Moore Twining's Site reconnaissance. No staining, leakage or odors were noted.

- Solid waste appeared to be limited primarily to trash placed within several trash cans observed inside and outside the warehouse building. No leakage or staining was associated with any of the trash cans on the day of Moore Twining's Site reconnaissance.

- One (1) storm drain was located in the western portion of the Site, just west of the warehouse building. No evidence of pouring, dumping or leakage of hazardous materials and/or petroleum products was observed around the drain on the day of Moore Twining's Site reconnaissance

- Some light surface staining was observed throughout the asphalt-paved parking area and driveway. This staining is believed to be associated with the parking of vehicles and would likely be considered a *de minimis* condition under ASTM Guidelines.

6.2 Off-Site

Adjacent properties were primarily vacant property or orchards from at least 1899 to the 1950s. Commercial development was first noted north of the Site in the late 1950s. Commercial development was first observed east of Sunnyvale Saratoga Road in the late 1960s. Commercial development was also first observed west of the Site in the early 1970s.

- **Former Firestone Tire**, located at 112 E. El Camino Real, approximately 350 feet northeast of the Site (incorrectly plotted by EDR as being 607 feet northeast of the Site), appears on the LUST database due to its status as a closed leaking UST incident.

6.3 Data Gaps

Data gaps are described as a lack of or inability to obtain information required by the standards and practices listed in ASTM E 1527-13, despite good faith efforts by the environmental professional or prospective landowner.

- No data gaps were encountered during the preparation of this assessment.

7.0 CONCLUSIONS

On behalf of Green Grocery, LLC, Moore Twining performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-13 for the Site located at 777 Sunnyvale Saratoga Road in the City Sunnyvale and County of Santa Clara, California. The Phase I ESA was performed during June of 2015. This assessment has revealed no evidence of recognized environmental conditions (RECs), controlled recognized environmental conditions (CRECs) or historical recognized environmental conditions (HRECs) in connection with the Site. However, the following items were identified during this assessment.

- The on-Site address of 777 Sunnyvale Saratoga Road appears on the HAZNET and EMI databases due to its status as a hazardous materials generation and/or storage facility. According to information obtained from the EDR report and the current Hazardous Material Management Plan (HMMP) provided by the CSFP (dated February 25, 2105), materials stored at this address include aged or surplus organics, an unspecified solvent mixture and latex waste. According to the provided HMMP, these materials are disposed of by PSC Waste Disposal. In addition, numerous 50 pound bags of fertilizers, 5-gallon cans of paint and water-proofing, and several 5-gallon containers of propane gas were observed on several metal shelving units inside and outside the warehouse building. No staining, leakage or odors were noted with any of these materials on the day of Moore Twining's Site reconnaissance. In addition, no documentation regarding spills, releases, incidents or violations were found for 777 Sunnyvale Saratoga Road. Therefore, the current potential impact to the Site from the storage and/or use of these materials appears to be low.

- A review of historical documentation reveals that two (2) shed-like structures were located in the southeastern portion of the Site from at least 1939 to the early-1970s. These structures may have included subsurface features such as septic tanks and/or domestic wells.

- A review of historical documentation indicates that the Site was occupied by an orchard from at least the late 1930s to the late 1960s. Therefore, there is a potential that environmentally persistent pesticides were applied to the Site during this time. Because the Site is reported to have been commercially developed since at least the early 1970s, the current potential impact to the Site from these pesticides appears to be low. However, it should be noted that on-Site soils containing residual concentrations of these pesticides would potentially require special handling or permitting if disposed of off the Site.

- Due to the reported age of construction of the on-Site warehouse building, there is a potential that hazardous building materials such as asbestos and/or lead-based paints may have been used. In order to address this concern, our firm contracted ACC Environmental to conduct a hazardous building materials survey for the structure on the Site. All samples were non-detect. These results have been presented to the client under separate cover.

8.0 CLOSING

Moore Twining Associates, Inc. performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-13 for the subject Site. Any exceptions to, or deletions from, this practice are described in the following paragraph.

The material content of this report is intended to be consistent with a standard of practice as defined by ASTM practice E 1527-13. However, the report format differs in style, arrangement, and presentation of material facts from the format described by ASTM.

We appreciate the opportunity to be of service to Green Grocery, LLC on this project. If you have any questions regarding this report, please contact our office at (800) 268-7021.

Sincerely,
MOORE TWINING ASSOCIATES, INC.
Environmental Services Division

Philip M Marquez
Phase I ESA Supervisor/Environmental Professional

"I declare that, to the best of my knowledge and belief, I meet the definition of Environmental Professional. 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."

9.0 REFERENCES

American Society for Testing and Materials, 2013, *ASTM Standards on Environmental Site Assessments for Commercial Real Estate*, 2nd ed., E 1527-13, Philadelphia, Pennsylvania.

Munger, Averill H., Ed. 1994. *Munger Map Book, California-Alaska Oil and Gas Fields*. Munger: Los Angeles, California.

United States Geological Survey, 1991, Cupertino, CA Quadrangle, 7.5 Minute Series Topographic Map.

John Wiley and Sons, Incorporated, 1976, *Geology of California*, Robert Norris and Robert W. Webb.

10.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

Moore Twining Associates, Inc. Phase I Environmental Site Assessment staff is composed of a group of environmental professionals that perform Environmental Site Assessments on a routine basis. The Phase I ESA staff is managed and supervised by individuals who conduct, prepare, oversee, and/or review Environmental Site Assessments on a daily basis. Qualification profiles for these individuals are provided in the following section.

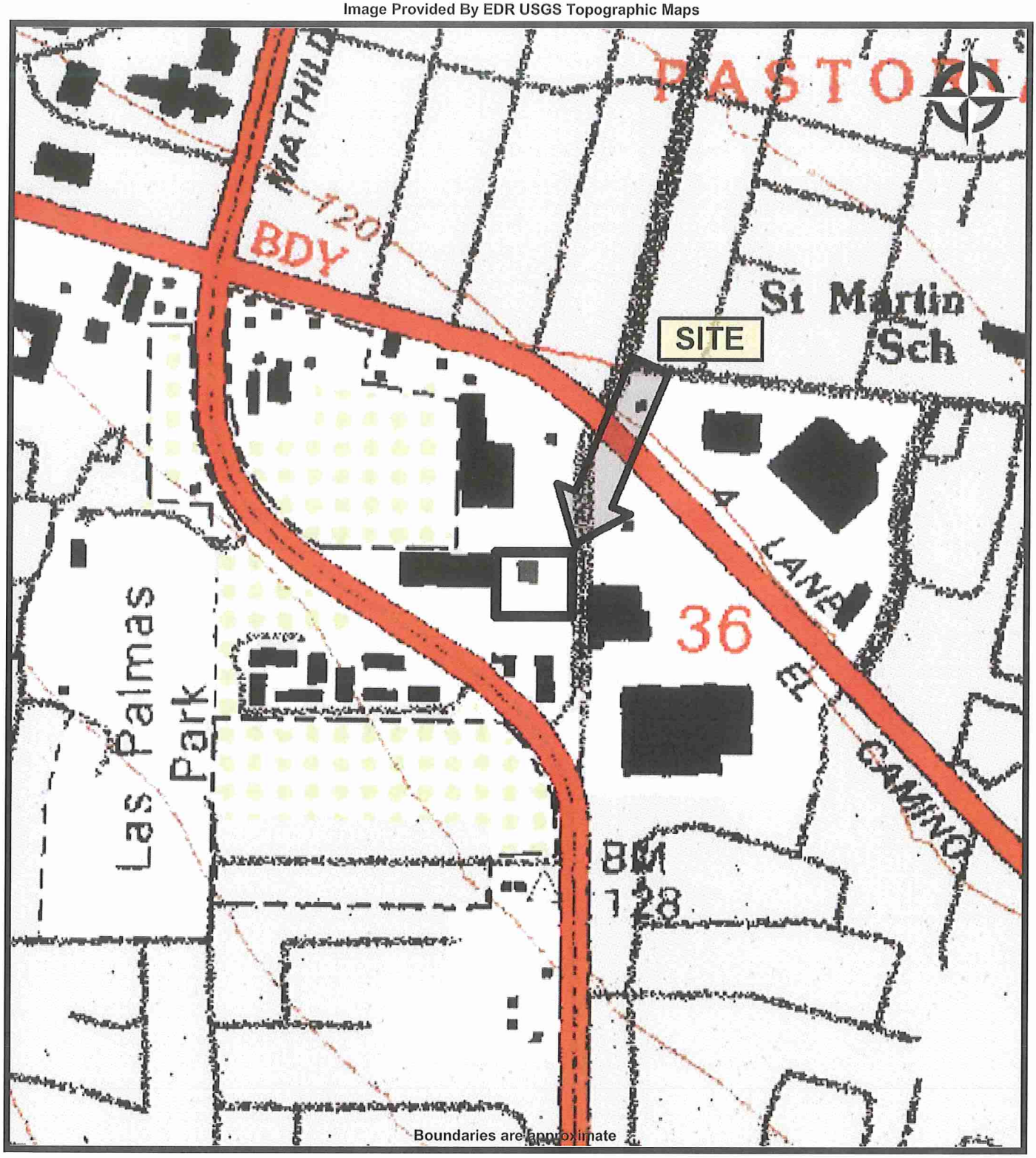
Philip M. Marquez
Supervisor - Phase I Environmental Site Assessments

Mr. Marquez has twelve years of experience conducting Phase I environmental site assessments and natural resource monitoring including biological resources and wetlands. Mr. Marquez has conducted environmental site assessments for a number of different project types including canning facilities, pesticide production facilities, shopping centers, gas stations, hospitals, school sites, and agricultural sites.

APPENDIX A

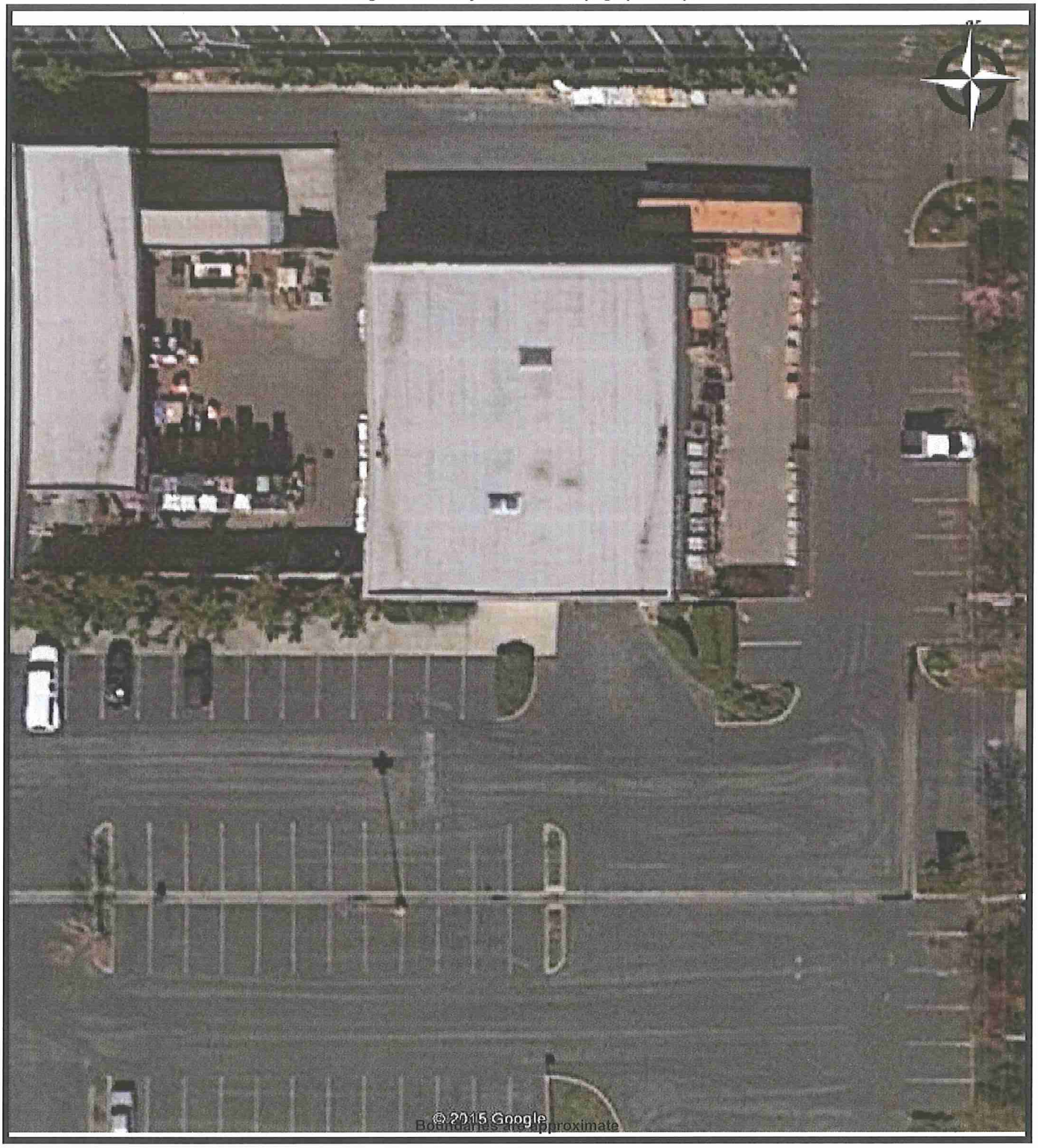
DRAWINGS

Image Provided By EDR USGS Topographic Maps



	SITE LOCATION MAP **GREEN GROCERY, LLC** **777 Sunnyvale Saratoga Road** **Sunnyvale California 94087**
	PREPARED FOR: Green Grocery, LLC **PROJ. MGR: Philip M.** **DATE: 6/22/2015** **DRAWN BY: Philip M.** **PROJ. #: E82626.0500**

Image Provided By EDR USGS Topographic Maps



	SITE PLAN.JPG GREEN GROCERY, LLC 777 Sunnyvale Saratoga Road Sunnyvale California 94087
PREPARED FOR: Green Grocery, LLC PROJ. MGR: Philip M. DRAWN BY: Philip M.	DATE: 6/22/2015 PROJ. #: E82626.0500

APPENDIX B

SITE PHOTOGRAPHS

PHOTOGRAPH 1

Pick Up Building, observed in the northern portion of the Site.

PHOTOGRAPH 2

Asphalt-paved parking area, located in the southern portion of the Site.

PHOTOGRAPH 3

Palettes of potting soil and mulch, located in the northeastern portions of the Site.

PHOTOGRAPH 4

Interior of 777 Sunnyvale Saratoga Road.

PHOTOGRAPH 5

Western portion of the Site, looking north.

PHOTOGRAPH 6

Storm drain, observed in the western portion of the Site.

APPENDIX C

EDR REPORT

Commercial Property
777 Sunnyvale Saratoga Road
Sunnyvale, CA 94087

Inquiry Number: 04326874.2r
June 16, 2015

The EDR Radius Map™ Report with GeoCheck®

EDR® Environmental Data Resources Inc

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Detail Map	3
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Government Records Searched/Data Currency Tracking	GR-1

GEOCHECK ADDENDUM

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Physical Setting Source Records Searched	PSGR-1

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

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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 1527-13) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

777 SUNNYVALE SARATOGA ROAD
SUNNYVALE, CA 94087

COORDINATES

Latitude (North):	37.3659000 - 37° 21' 57.24"
Longitude (West):	122.0330000 - 122° 1' 58.80"
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	585629.0
UTM Y (Meters):	4135698.5
Elevation:	128 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	37122-C1 CUPERTINO, CA
Most Recent Revision:	1991
North Map:	37122-D1 MOUNTAIN VIEW, CA
Most Recent Revision:	1999

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20120520
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
777 SUNNYVALE SARATOGA ROAD
SUNNYVALE, CA 94087

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	ORCHARD SUPPLY HARDW	777 SUNNYVALE SARTGA	FINDS		TP
A2	ORCHARD SUPPLY HARDW	777 SUNNYVALE-SARATO	FINDS		TP
A3	ORCHARD SUPPLY HARDW	777 SUNNYVALE SARATO	HAZNET		TP
A4	ORCHARD SUPPLY HARDW	777 SUNNYVALE SARATO	HAZNET		TP
A5	ORCHARD SUPPLY HARDW	777 SUNNYVALE SARTGA	EMI		TP
A6	ORCHARD SUPPLY HARDW	777 SUNNYVALE SARATO	HAZNET		TP
Reg	WESTINGHOUSE ELECTRI	401 HENDY AVENUE	NPL, CERCLIS, RCRA-LQG, US ENG CONTROLS, US INST...	Same	4614, 0.874, NNE
B7		112 E EL CAMINO REAL	EDR US Hist Auto Stat	Lower	607, 0.115, NE
B8	FORMER FIRESTONE TIR	112 E. EL CAMINO REA	LUST	Lower	607, 0.115, NE
9	PEP BOYS NO 840	170 E EL CAMINO	RCRA-SQG	Lower	620, 0.117, East
B10	WALGREENS NO 7080	105 E EL CAMINO REAL	RCRA-SQG	Lower	673, 0.127, NE
11	WALGREENS NO 7080	103 W EL CAMINO REAL	RCRA-SQG, FINDS	Lower	777, 0.147, NNE
C12	SAFEWAY STORE NO 288	150 E EL CAMINO REAL	RCRA-LQG, FINDS	Lower	785, 0.149, East
C13		150 E EL CAMINO REAL	EDR US Hist Auto Stat	Lower	785, 0.149, East
14	THRIFTY OIL	773 MATHILDA	HIST CORTESE	Higher	848, 0.161, West
D15		597 S MURPHY AVE	EDR US Hist Auto Stat	Lower	878, 0.166, North
E16		152 W EL CAMINO REAL	EDR US Hist Auto Stat	Lower	890, 0.169, NNW
E17	PEP BOYS NO 840	152 W EL CAMINO REAL	RCRA NonGen / NLR	Lower	890, 0.169, NNW
D18		590 S MURPHY AVE	EDR US Hist Cleaners	Lower	943, 0.179, North
19		170 E EL CAMINO REAL	EDR US Hist Auto Stat	Lower	955, 0.181, East
20	CAMINO HEALTHCARE MA	201 OLD SAN FRANCISC	RCRA-SQG	Lower	980, 0.186, NNE
21	CAMINO HEALTHCARE MA	301 OLD SAN FRANCISC	RCRA-SQG	Lower	1028, 0.195, NE
22	REGAL STATION #434	496 EL CAMINO REAL	HIST UST	Lower	1064, 0.202, NW
23		576 S MURPHY AVE	EDR US Hist Auto Stat	Lower	1104, 0.209, North
F24		251 W EL CAMINO REAL	EDR US Hist Auto Stat	Lower	1122, 0.213, NNW
F25	DA LES AUTO BODY	251 W EL CAMINO REAL	RCRA-SQG, FINDS	Lower	1122, 0.213, NNW
G26		295 W EL CAMINO REAL	EDR US Hist Cleaners	Lower	1224, 0.232, NNW
G27	EXXON	496 EL CAMINO REAL	HIST CORTESE	Lower	1302, 0.247, NNW
H28	ARCO	707 MATHILDA	HIST CORTESE	Higher	1319, 0.250, WNW
H29	PRESTIGE STATIONS IN	707 S MATHILDA AVE	HIST UST	Higher	1319, 0.250, WNW
I30	ARCO #5334	707 S MATHILDA AVE	LUST, CA FID UST	Higher	1493, 0.283, NW
I31	ARCO #5334	707 S MATHILDA AVE	LUST, HIST LUST, UST, SWEEPS UST	Higher	1493, 0.283, NW
I32	ARCO #5334	707 S MATHILDA AVE	LUST, HIST UST	Higher	1493, 0.283, NW
J33	EXXON R/S 70117	496 W EL CAMINO REAL	LUST, HIST UST, SWEEPS UST	Lower	1555, 0.295, NW
J34	EXXON #7-0117	496 W EL CAMINO REAL	LUST, HIST LUST	Lower	1555, 0.295, NW
K35	RAINES CHEVROLET	666 W EL CAMINO REAL	RCRA NonGen / NLR, FINDS, HIST CORTESE, LUST, HIST...	Higher	2257, 0.427, NW
L36	EXXON RAS #7-3669	498 N MATHILDA AVE	LUST, CA FID UST, SWEEPS UST	Lower	2288, 0.433, NNW
L37	EXXON RAS NO 73669	498 N MATHILDA	RCRA-SQG, HIST CORTESE, LUST, HIST UST	Lower	2288, 0.433, NNW
L38	UNOCAL #4315	499 N MATHILDA AVE	LUST, HIST LUST	Lower	2333, 0.442, NNW

MAPPED SITES SUMMARY

Target Property Address:
777 SUNNYVALE SARATOGA ROAD
SUNNYVALE, CA 94087

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
L39	UNION OIL SS# 4315	499 N MATHILDA AVE	HIST CORTESE, HIST UST	Lower	2333, 0.442, NNW
K40	EXXON R/S 70285	696 W EL CAMINO REAL	LUST, CA FID UST, SWEEPS UST	Higher	2360, 0.447, NW
K41	EXXON #7-0285	696 W EL CAMINO REAL	LUST, HIST LUST	Higher	2360, 0.447, NW
M42	CIVIC CENTER	456 W OLIVE AVE	LUST, HIST UST	Lower	2563, 0.485, NW
M43	SUNNYVALE CITY HALL	456 OLIVE AVE W	HIST CORTESE, LUST, CA FID UST, HIST LUST	Lower	2563, 0.485, NW
M44	SUNNYVALE CITY HALL	456 W OLIVE AVE	LUST, UST, SWEEPS UST	Lower	2563, 0.485, NW
45	SUNNYVALE	211 W IOWA AVE	HIST UST, ENVIROSTOR	Lower	2600, 0.492, North
46	SUNNYVALE ORDNANCE D		FUDS	Lower	4584, 0.868, NNW
47	JOSHUA HENDY IRON WO		ENVIROSTOR	Lower	4852, 0.919, NE
N48	NORTHROP GRUMMAN MAR	401 E HENDY AVE	NPDES, HIST UST, ENVIROSTOR	Lower	5016, 0.950, NNE
N49	WESTINGHOUSE ELECTRI	401 EAST HENDY	CA BOND EXP. PLAN	Lower	5016, 0.950, NNE
O50	PHILIPS SEMICONDUCTO	730 EVELYN AVENUE	RCRA-TSDF, CERC-NFRAP, RCRA-LQG, FINDS, HIST...	Lower	5213, 0.987, ENE
O51	PHILIPS SEMICONDUCTO	730 EVELYN	NPDES, SLIC, ENF, ENVIROSTOR	Lower	5213, 0.987, ENE

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 8 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
ORCHARD SUPPLY HARDW 777 SUNNYVALE SARTGA SUNNYVALE, CA 94087	FINDS Registry ID:: 110058343813	N/A
ORCHARD SUPPLY HARDW 777 SUNNYVALE-SARATO SUNNYVALE, CA 94086	FINDS Registry ID:: 110055759987	N/A
ORCHARD SUPPLY HARDW 777 SUNNYVALE SARATO SUNNYVALE, CA 94087	HAZNET GEPAID: CAL000001338	N/A
ORCHARD SUPPLY HARDW 777 SUNNYVALE SARATO SUNNYVALE, CA 94087	HAZNET GEPAID: CAL000191159	N/A
ORCHARD SUPPLY HARDW 777 SUNNYVALE SARTGA SUNNYVALE, CA 94087	EMI Facility Id: 19727	N/A
ORCHARD SUPPLY HARDW 777 SUNNYVALE SARATO SUNNYVALE, CA 94087	HAZNET GEPAID: CAD982340499 GEPAID: CAL000389902	N/A

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:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

Proposed NPL..... Proposed National Priority List Sites

EXECUTIVE SUMMARY

NPL LIENS..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL..... National Priority List Deletions

Federal CERCLIS list

CERCLIS..... Comprehensive Environmental Response, Compensation, and Liability Information System
FEDERAL FACILITY..... Federal Facility Site Information listing

Federal CERCLIS NFRAP site List

CERC-NFRAP..... CERCLIS No Further Remedial Action Planned

Federal RCRA CORRACTS facilities list

CORRACTS..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-CESQG..... RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

US ENG CONTROLS..... Engineering Controls Sites List
US INST CONTROL..... Sites with Institutional Controls
LUCIS..... Land Use Control Information System

Federal ERNS list

ERNS..... Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE..... State Response Sites

State and tribal landfill and/or solid waste disposal site lists

SWF/LF..... Solid Waste Information System

State and tribal leaking storage tank lists

SLIC..... Statewide SLIC Cases
INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

UST..... Active UST Facilities
AST..... Aboveground Petroleum Storage Tank Facilities
INDIAN UST..... Underground Storage Tanks on Indian Land

FEMA UST---------- Underground Storage Tank Listing

State and tribal voluntary cleanup sites

INDIAN VCP---------- Voluntary Cleanup Priority Listing
VCP---------- Voluntary Cleanup Program Properties

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS---------- A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

DEBRIS REGION 9---------- Torres Martinez Reservation Illegal Dump Site Locations
ODI---------- Open Dump Inventory
SWRCY---------- Recycler Database
HAULERS---------- Registered Waste Tire Haulers Listing
INDIAN ODI---------- Report on the Status of Open Dumps on Indian Lands
WMUDS/SWAT---------- Waste Management Unit Database

Local Lists of Hazardous waste / Contaminated Sites

US CDL---------- Clandestine Drug Labs
HIST Cal-Sites---------- Historical Calsites Database
SCH---------- School Property Evaluation Program
Toxic Pits---------- Toxic Pits Cleanup Act Sites
CDL---------- Clandestine Drug Labs
US HIST CDL---------- National Clandestine Laboratory Register

Local Lists of Registered Storage Tanks

CA FID UST---------- Facility Inventory Database
SWEEPS UST---------- SWEEPS UST Listing

Local Land Records

LIENS 2---------- CERCLA Lien Information
LIENS---------- Environmental Liens Listing
DEED---------- Deed Restriction Listing

Records of Emergency Release Reports

HMIRS---------- Hazardous Materials Information Reporting System
CHMIRS---------- California Hazardous Material Incident Report System
LDS---------- Land Disposal Sites Listing
MCS---------- Military Cleanup Sites Listing
SPILLS 90---------- SPILLS 90 data from FirstSearch

Other Ascertainable Records

DOT OPS---------- Incident and Accident Data
DOD---------- Department of Defense Sites

CONSENT..... Superfund (CERCLA) Consent Decrees
UMTRA..... Uranium Mill Tailings Sites
US 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
ICIS..... Integrated Compliance Information System
PADS..... PCB Activity Database System
MLTS..... Material Licensing Tracking System
RADINFO..... Radiation Information Database
RAATS..... RCRA Administrative Action Tracking System
RMP..... Risk Management Plans
NPDES..... NPDES Permits Listing
UIC..... UIC Listing
Cortese..... "Cortese" Hazardous Waste & Substances Sites List
SAN JOSE HAZMAT..... Hazardous Material Facilities
CUPA Listings..... CUPA Resources List
Notify 65..... Proposition 65 Records
DRYCLEANERS..... Cleaner Facilities
WIP..... Well Investigation Program Case List
ENF..... Enforcement Action Listing
INDIAN RESERV..... Indian Reservations
SCRD DRYCLEANERS..... State Coalition for Remediation of Drycleaners Listing
WDS..... Waste Discharge System
Financial Assurance..... Financial Assurance Information Listing
PROC..... Certified Processors Database
HWT..... Registered Hazardous Waste Transporter Database
MWMP..... Medical Waste Management Program Listing
LEAD SMELTERS..... Lead Smelter Sites
US AIRS..... Aerometric Information Retrieval System Facility Subsystem
EPA WATCH LIST..... EPA WATCH LIST
US FIN ASSUR..... Financial Assurance Information
COAL ASH EPA..... Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER..... PCB Transformer Registration Database
COAL ASH DOE..... Steam-Electric Plant Operation Data
2020 COR ACTION..... 2020 Corrective Action Program List
PRP..... Potentially Responsible Parties

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP..... EDR Proprietary Manufactured Gas Plants

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LUST..... Recovered Government Archive Leaking Underground Storage Tank
RGA LF..... Recovered Government Archive Solid Waste Facilities List

EXECUTIVE SUMMARY

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.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: Also known as Superfund, the National Priority List database is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund program. The source of this database is the U.S. EPA.

A review of the NPL list, as provided by EDR, and dated 12/16/2014 has revealed that there is 1 NPL site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
WESTINGHOUSE ELECTRI	*401 HENDY AVENUE*	*NNE 1/2 - 1 (0.874 mi.)*	*0*	*13*

Federal RCRA generators list

RCRA-LQG: 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). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

A review of the RCRA-LQG list, as provided by EDR, and dated 03/10/2015 has revealed that there is 1 RCRA-LQG site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
SAFEWAY STORE NO 288	*150 E EL CAMINO REAL*	*E 1/8 - 1/4 (0.149 mi.)*	*C12*	*57*

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 03/10/2015 has revealed that there are 6

RCRA-SQG sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
PEP BOYS NO 840	170 E EL CAMINO	E 0 - 1/8 (0.117 mi.)	9	52
WALGREENS NO 7080	105 E EL CAMINO REAL	NE 1/8 - 1/4 (0.127 mi.)	B10	53
WALGREENS NO 7080	***103 W EL CAMINO REAL***	***NNE 1/8 - 1/4 (0.147 mi.)***	***11***	***55***
CAMINO HEALTHCARE MA	201 OLD SAN FRANCISC	NNE 1/8 - 1/4 (0.186 mi.)	20	63
CAMINO HEALTHCARE MA	301 OLD SAN FRANCISC	NE 1/8 - 1/4 (0.195 mi.)	21	64
DA LES AUTO BODY	***251 W EL CAMINO REAL***	***NNW 1/8 - 1/4 (0.213 mi.)***	***F25***	***67***

State- and tribal - equivalent CERCLIS

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 05/04/2015 has revealed that there are 4 ENVIROSTOR sites within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
SUNNYVALE Status: No Further Action Facility Id: 80001039	***211 W IOWA AVE***	***N 1/4 - 1/2 (0.492 mi.)***	***45***	***110***
JOSHUA HENDY IRON WO Status: No Further Action Facility Id: 80001020		NE 1/2 - 1 (0.919 mi.)	47	112
NORTHROP GRUMMAN MAR Status: Inactive - Needs Evaluation Facility Id: 71002136	***401 E HENDY AVE***	***NNE 1/2 - 1 (0.950 mi.)***	***N48***	***113***
PHILIPS SEMICONDUCTO Status: Inactive - Needs Evaluation Status: Refer: RWQCB Facility Id: 80001793 Facility Id: 43360010	***730 EVELYN***	***ENE 1/2 - 1 (0.987 mi.)***	***O51***	***127***

State and tribal leaking storage tank lists

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 03/13/2015 has revealed that there are 15

EXECUTIVE SUMMARY

LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ARCO #5334 Date Closed: 07/02/2001 Date Closed: 09/24/2004 SCVWD ID: 06S2W36E01F SCVWD ID: 06S2W36E05F	***707 S MATHILDA AVE***	***NW 1/4 - 1/2 (0.283 mi.)***	***I30***	***70***
ARCO #5334 Facility Status: Case Closed Facility Status: Preliminary site assessment underway date9: 7/2/2001	***707 S MATHILDA AVE***	***NW 1/4 - 1/2 (0.283 mi.)***	***I31***	***70***
ARCO #5334 Status: Completed - Case Closed Global Id: T0608525632 Global Id: T0608500184	***707 S MATHILDA AVE***	***NW 1/4 - 1/2 (0.283 mi.)***	***I32***	***73***
RAINES CHEVROLET Status: Completed - Case Closed Facility Status: Case Closed Date Closed: 08/18/1997 Global Id: T0608501737 SCVWD ID: 06S2W36E03F date9: 8/18/1997	***666 W EL CAMINO REAL***	***NW 1/4 - 1/2 (0.427 mi.)***	***K35***	***81***
EXXON R/S 70285 Status: Completed - Case Closed Date Closed: 06/17/2009 Global Id: T0608502405 SCVWD ID: 06S2W36E04F	***696 W EL CAMINO REAL***	***NW 1/4 - 1/2 (0.447 mi.)***	***K40***	***97***
EXXON #7-0285 Facility Status: Pollution Characterization	***696 W EL CAMINO REAL***	***NW 1/4 - 1/2 (0.447 mi.)***	***K41***	***103***

Lower Elevation	Address	Direction / Distance	Map ID	Page
FORMER FIRESTONE TIR Status: Completed - Case Closed Date Closed: 02/11/2010 Global Id: T10000001595 SCVWD ID: 06S2W36K01F	112 E. EL CAMINO REA	NE 0 - 1/8 (0.115 mi.)	B8	50
EXXON R/S 70117 Status: Completed - Case Closed Date Closed: 06/18/2004 Global Id: T0608501097 SCVWD ID: 06S2W36F01F	***496 W EL CAMINO REAL***	***NW 1/4 - 1/2 (0.295 mi.)***	***J33***	***77***
EXXON #7-0117 Facility Status: Case Closed date9: 6/18/2004	***496 W EL CAMINO REAL***	***NW 1/4 - 1/2 (0.295 mi.)***	***J34***	***81***
EXXON RAS #7-3669 Date Closed: 01/21/2005 SCVWD ID: 06S2W24Q01F	***498 N MATHILDA AVE***	***NNW 1/4 - 1/2 (0.433 mi.)***	***L36***	***89***
EXXON RAS NO 73669 Status: Completed - Case Closed Global Id: T0608500579	***498 N MATHILDA***	***NNW 1/4 - 1/2 (0.433 mi.)***	***L37***	***91***
UNOCAL #4315 Facility Status: Pollution Characterization	***499 N MATHILDA AVE***	***NNW 1/4 - 1/2 (0.442 mi.)***	***L38***	***95***

Lower Elevation	Address	Direction / Distance	Map ID	Page
CIVIC CENTER Status: Completed - Case Closed Global Id: T0608598524	*456 W OLIVE AVE*	*NW 1/4 - 1/2 (0.485 mi.)*	*M42*	*104*
SUNNYVALE CITY HALL Status: Completed - Case Closed Facility Id: 43-1413 Facility Status: Case Closed Global Id: T0608501386 date9: 12/21/1990	*456 OLIVE AVE W*	*NW 1/4 - 1/2 (0.485 mi.)*	*M43*	*106*
SUNNYVALE CITY HALL Date Closed: 12/21/1990 SCVWD ID: 06S2W36D01F	*456 W OLIVE AVE*	*NW 1/4 - 1/2 (0.485 mi.)*	*M44*	*108*

HIST LUST: A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

A review of the HIST LUST list, as provided by EDR, and dated 03/29/2005 has revealed that there are 6 HIST LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ARCO #5334 SCVWD ID: 06S2W36E01 SCVWD ID: 06S2W36E05	*707 S MATHILDA AVE*	*NW 1/4 - 1/2 (0.283 mi.)*	*I31*	*70*
RAINES CHEVROLET SCVWD ID: 06S2W36E03	*666 W EL CAMINO REAL*	*NW 1/4 - 1/2 (0.427 mi.)*	*K35*	*81*
EXXON #7-0285 SCVWD ID: 06S2W36E04	*696 W EL CAMINO REAL*	*NW 1/4 - 1/2 (0.447 mi.)*	*K41*	*103*

Lower Elevation	Address	Direction / Distance	Map ID	Page
EXXON #7-0117 SCVWD ID: 06S2W36F01	*496 W EL CAMINO REAL*	*NW 1/4 - 1/2 (0.295 mi.)*	*J34*	*81*
UNOCAL #4315 SCVWD ID: 06S2W24Q02	*499 N MATHILDA AVE*	*NNW 1/4 - 1/2 (0.442 mi.)*	*L38*	*95*
SUNNYVALE CITY HALL SCVWD ID: 06S2W36D01	*456 OLIVE AVE W*	*NW 1/4 - 1/2 (0.485 mi.)*	*M43*	*106*

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Registered Storage Tanks

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 2

HIST UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
PRESTIGE STATIONS IN Facility Id: 00000067553	707 S MATHILDA AVE	WNW 1/8 - 1/4 (0.250 mi.)	H29	69

Lower Elevation	Address	Direction / Distance	Map ID	Page
REGAL STATION #434 Facility Id: 00000063366	496 EL CAMINO REAL	NW 1/8 - 1/4 (0.202 mi.)	22	65

Other Ascertainable Records

RCRA NonGen / NLR: 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). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 03/10/2015 has revealed that there is 1 RCRA NonGen / NLR site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
PEP BOYS NO 840	152 W EL CAMINO REAL	NNW 1/8 - 1/4 (0.169 mi.)	E17	61

FUDS: The Listing includes locations of Formerly Used Defense Sites Properties where the US Army Corps Of Engineers is actively working or will take necessary cleanup actions.

A review of the FUDS list, as provided by EDR, and dated 06/06/2014 has revealed that there is 1 FUDS site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
SUNNYVALE ORDNANCE D		NNW 1/2 - 1 (0.868 mi.)	46	111

ROD: Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid the cleanup.

A review of the ROD list, as provided by EDR, and dated 11/25/2013 has revealed that there is 1 ROD site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
WESTINGHOUSE ELECTRI	*401 HENDY AVENUE*	*NNE 1/2 - 1 (0.874 mi.)*	*0*	*13*

CA BOND EXP. PLAN: Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

A review of the CA BOND EXP. PLAN list, as provided by EDR, and dated 01/01/1989 has revealed that there is 1 CA BOND EXP. PLAN site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
WESTINGHOUSE ELECTRI	401 EAST HENDY	NNE 1/2 - 1 (0.950 mi.)	N49	121

HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there are 7 HIST CORTESE sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
THRIFTY OIL Reg Id: 43-1473	773 MATHILDA	W 1/8 - 1/4 (0.161 mi.)	14	60
ARCO Reg Id: 43-0116	707 MATHILDA	WNW 1/8 - 1/4 (0.250 mi.)	H28	69
RAINES CHEVROLET Reg Id: 43-1809	***666 W EL CAMINO REAL***	***NW 1/4 - 1/2 (0.427 mi.)***	***K35***	***81***

Lower Elevation	Address	Direction / Distance	Map ID	Page
EXXON Reg Id: 43-1105	496 EL CAMINO REAL	NNW 1/8 - 1/4 (0.247 mi.)	G27	68
EXXON RAS NO 73669 Reg Id: 43-0537	***498 N MATHILDA***	***NNW 1/4 - 1/2 (0.433 mi.)***	***L37***	***91***
UNION OIL SS# 4315 Reg Id: 43-1569	***499 N MATHILDA AVE***	***NNW 1/4 - 1/2 (0.442 mi.)***	***L39***	***96***
SUNNYVALE CITY HALL Reg Id: 43-1413	***456 OLIVE AVE W***	***NW 1/4 - 1/2 (0.485 mi.)***	***M43***	***106***

HWP: Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

A review of the HWP list, as provided by EDR, and dated 05/26/2015 has revealed that there is 1 HWP site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
PHILIPS SEMICONDUCTO EPA Id: CAT000614073 Cleanup Status: CLOSED	***730 EVELYN AVENUE***	***ENE 1/2 - 1 (0.987 mi.)***	***O50***	***122***

EXECUTIVE SUMMARY

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR US Hist Auto Stat: 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. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR US Hist Auto Stat list, as provided by EDR, has revealed that there are 7 EDR US Hist Auto Stat sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
Not reported	112 E EL CAMINO REAL	NE 0 - 1/8 (0.115 mi.)	B7	50
Not reported	150 E EL CAMINO REAL	E 1/8 - 1/4 (0.149 mi.)	C13	60
Not reported	597 S MURPHY AVE	N 1/8 - 1/4 (0.166 mi.)	D15	60
Not reported	152 W EL CAMINO REAL	NNW 1/8 - 1/4 (0.169 mi.)	E16	61
Not reported	170 E EL CAMINO REAL	E 1/8 - 1/4 (0.181 mi.)	19	63
Not reported	576 S MURPHY AVE	N 1/8 - 1/4 (0.209 mi.)	23	66
Not reported	251 W EL CAMINO REAL	NNW 1/8 - 1/4 (0.213 mi.)	F24	66

EDR US Hist 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. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR US Hist Cleaners list, as provided by EDR, has revealed that there are 2 EDR US Hist Cleaners sites within approximately 0.25 miles of the target property.

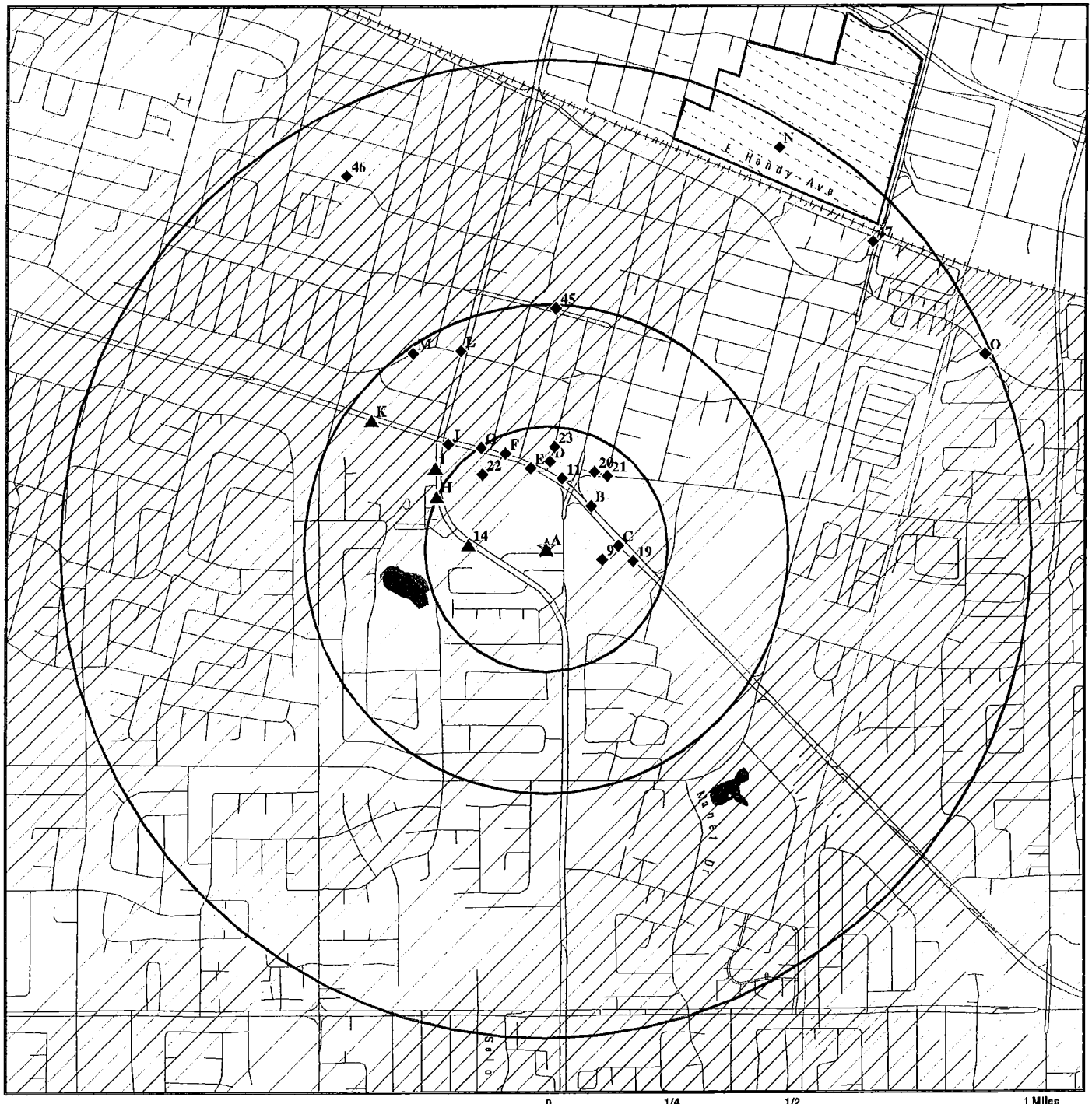
Lower Elevation	Address	Direction / Distance	Map ID	Page
Not reported	590 S MURPHY AVE	N 1/8 - 1/4 (0.179 mi.)	D18	62
Not reported	295 W EL CAMINO REAL	NNW 1/8 - 1/4 (0.232 mi.)	G26	68

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 4 records.

Site Name	Database(s)
CONOCOPHILLIPS # 11213	LUST, HIST LUST
SUNNYVALE, CITY OF	LUST
BP OIL #11232	LUST
SUMMERHILL CHERRY ORCHARD PROJECT	ENVIROSTOR

OVERVIEW MAP - 04326874.2R



- ★ 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
- Oil & Gas pipelines from USGS
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- 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: Commercial Property ADDRESS: 777 Sunnyvale Saratoga Road Sunnyvale CA 94087 LAT/LONG: 37.3659 / 122.033	CLIENT: MooreTwining Associates, Inc. CONTACT: Philip Marquez INQUIRY #: 04326874.2r DATE: June 16, 2015 2:27 pm

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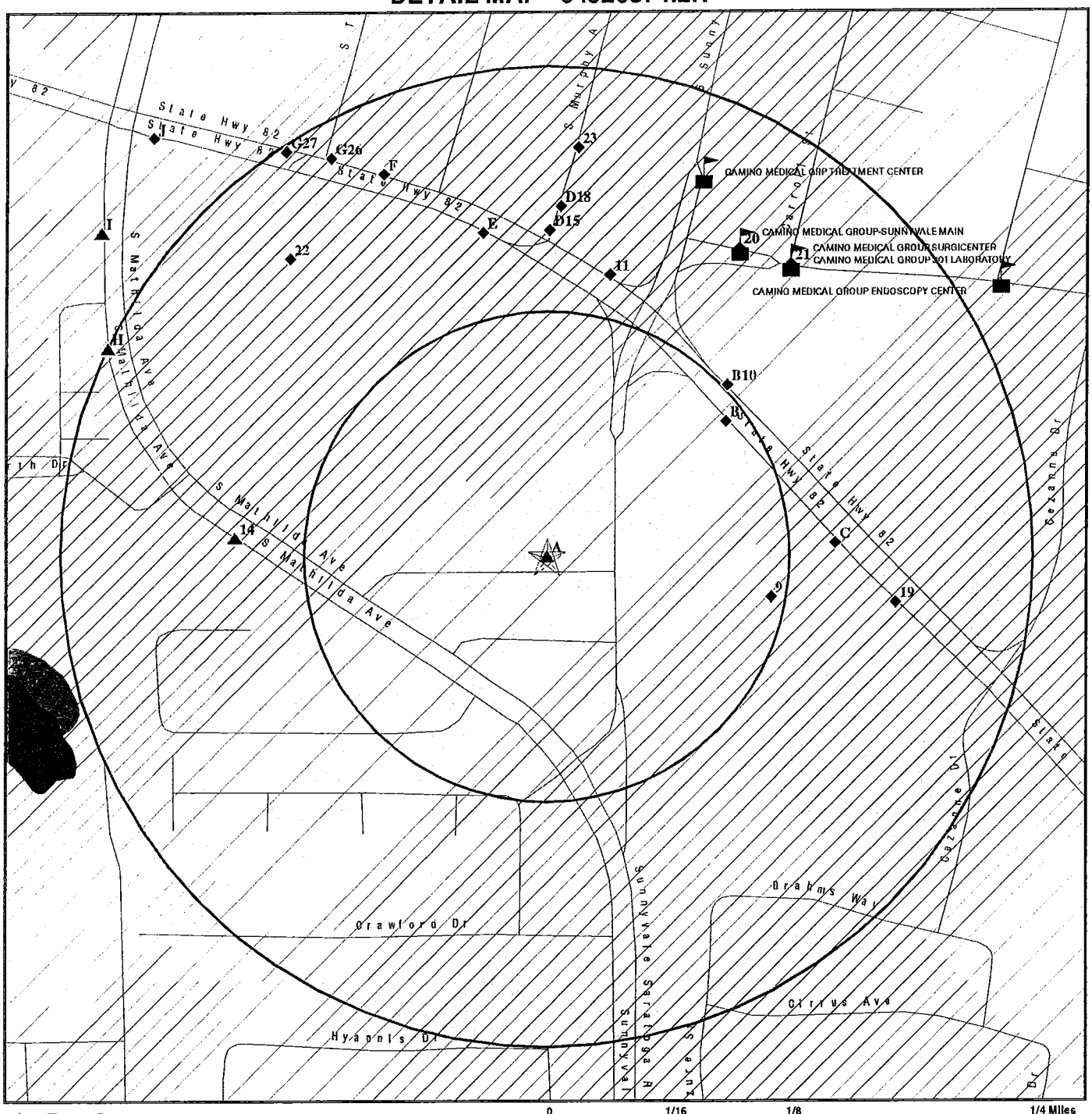
DETAIL MAP - 04326874.2R



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Oil & Gas pipelines from USGS
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- 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: Commercial Property ADDRESS: 777 Sunnyvale Saratoga Road Sunnyvale CA 94087 LAT/LONG: 37.3659 / 122.033	CLIENT: MooreTwining Associates, Inc. CONTACT: Philip Marquez INQUIRY #: 04326874.2r DATE: June 16, 2015 2:30 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	1	NR	1
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	TP		NR	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
CERCLIS	0.500		0	0	0	NR	NR	0
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site List								
CERC-NFRAP	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	1	NR	NR	NR	1
RCRA-SQG	0.250		1	5	NR	NR	NR	6
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
LUCIS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE	1.000		0	0	0	0	NR	0
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000		0	0	1	3	NR	4
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST	0.500		1	0	14	NR	NR	15

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
SLIC	0.500		0	0	0	NR	NR	0
HIST LUST	0.500		0	0	6	NR	NR	6
INDIAN LUST	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
FEMA UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	TP		NR	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US CDL	TP		NR	NR	NR	NR	NR	0
HIST Cal-Sites	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
CDL	TP		NR	NR	NR	NR	NR	0
US HIST CDL	TP		NR	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
CA FID UST	0.250		0	0	NR	NR	NR	0
HIST UST	0.250		0	2	NR	NR	NR	2
SWEEPS UST	0.250		0	0	NR	NR	NR	0
Local Land Records								
LIENS 2	TP		NR	NR	NR	NR	NR	0
LIENS	TP		NR	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
CHMIRS	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LDS	TP		NR	NR	NR	NR	NR	0
MCS	TP		NR	NR	NR	NR	NR	0
SPILLS 90	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	1	NR	NR	NR	1
DOT OPS	TP		NR	NR	NR	NR	NR	0
DOD	1.000		0	0	0	0	NR	0
FUDS	1.000		0	0	0	1	NR	1
CONSENT	1.000		0	0	0	0	NR	0
ROD	1.000		0	0	0	1	NR	1
UMTRA	0.500		0	0	0	NR	NR	0
US 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
ICIS	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	TP	2	NR	NR	NR	NR	NR	2
RAATS	TP		NR	NR	NR	NR	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	1	NR	1
NPDES	TP		NR	NR	NR	NR	NR	0
UIC	TP		NR	NR	NR	NR	NR	0
Cortese	0.500		0	0	0	NR	NR	0
HIST CORTESE	0.500		0	3	4	NR	NR	7
SAN JOSE HAZMAT	0.250		0	0	NR	NR	NR	0
CUPA Listings	0.250		0	0	NR	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
ENF	TP		NR	NR	NR	NR	NR	0
HAZNET	TP	3	NR	NR	NR	NR	NR	3
EMI	TP	1	NR	NR	NR	NR	NR	1
INDIAN RESERV	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
WDS	TP		NR	NR	NR	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
HWT	0.250		0	0	NR	NR	NR	0
HWP	1.000		0	0	0	1	NR	1
MWMP	0.250		0	0	NR	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR US Hist Auto Stat	0.250		1	6	NR	NR	NR	7
EDR US Hist Cleaners	0.250		0	2	NR	NR	NR	2
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LUST	TP		NR	NR	NR	NR	NR	0
RGA LF	TP		NR	NR	NR	NR	NR	0
- Totals --		6	3	20	25	15	0	62

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1
Target Property
ORCHARD SUPPLY HARDWARE
777 SUNNYVALE SARTGA RD
SUNNYVALE, CA 94087

FINDS **1016789921**
N/A

Site 1 of 6 in cluster A

Actual: 128 ft.

FINDS:

Registry ID: 110058343813

Environmental Interest/Information System
CRITERIA AND HAZARDOUS AIR POLLUTANT INVENTORY

A2
Target Property
ORCHARD SUPPLY HARDWARE #050
777 SUNNYVALE-SARATOGA ROAD
SUNNYVALE, CA 94086

FINDS **1016426483**
N/A

Site 2 of 6 in cluster A

Actual: 128 ft.

FINDS:

Registry ID: 110055759987

Environmental Interest/Information System
STATE MASTER

A3
Target Property
ORCHARD SUPPLY HARDWARE
777 SUNNYVALE SARATOGA RD
SUNNYVALE, CA 94087

HAZNET **S113022142**
N/A

Site 3 of 6 in cluster A

Actual: 128 ft.

HAZNET:

envid:	S113022142
Year:	1997
GEPAID:	CAL000001338
Contact:	WICKES CO INC
Telephone:	0000000000
Mailing Name:	Not reported
Mailing Address:	P O BOX 49027
Mailing City,St,Zip:	SAN JOSE, CA 951610000
Gen County:	Not reported
TSD EPA ID:	NVT330010000
TSD County:	Not reported
Waste Category:	Polychlorinated biphenyls and material containing PCBs
Disposal Method:	Not reported
Tons:	.5289
Facility County:	Santa Clara

A4 ORCHARD SUPPLY HARDWARE 050/5648 HAZNET S113100301
Target 777 SUNNYVALE SARATOGA RD N/A
Property SUNNYVALE, CA 94087

Site 4 of 6 in cluster A

Actual: 128 ft.

HAZNET:

envid:	S113100301
Year:	2013
GEPAID:	CAL000191159
Contact:	LINDA TARANGIOLI
Telephone:	4083659975
Mailing Name:	Not reported
Mailing Address:	6450 VIA DEL ORO
Mailing City,St,Zip:	SAN JOSE, CA 951190000
Gen County:	Santa Clara
TSD EPA ID:	CAD008364432
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Fuel Blending Prior To Energy Recovery At Another Site
Tons:	0.01
Facility County:	Not reported

envid:	S113100301
Year:	2013
GEPAID:	CAL000191159
Contact:	LINDA TARANGIOLI
Telephone:	4083659975
Mailing Name:	Not reported
Mailing Address:	6450 VIA DEL ORO
Mailing City,St,Zip:	SAN JOSE, CA 951190000
Gen County:	Santa Clara
TSD EPA ID:	CAD008364432
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.015
Facility County:	Not reported

envid:	S113100301
Year:	2013
GEPAID:	CAL000191159
Contact:	LINDA TARANGIOLI
Telephone:	4083659975
Mailing Name:	Not reported
Mailing Address:	6450 VIA DEL ORO
Mailing City,St,Zip:	SAN JOSE, CA 951190000
Gen County:	Santa Clara
TSD EPA ID:	CAD008364432
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.0325
Facility County:	Not reported

envid:	S113100301
Year:	2013

ORCHARD SUPPLY HARDWARE 050/5648 (Continued) **S113100301**

GEPAID:	CAL000191159
Contact:	LINDA TARANGIOLI
Telephone:	4083659975
Mailing Name:	Not reported
Mailing Address:	6450 VIA DEL ORO
Mailing City,St,Zip:	SAN JOSE, CA 951190000
Gen County:	Santa Clara
TSD EPA ID:	CAD008364432
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.03
Facility County:	Not reported

envid:	S113100301
Year:	2012
GEPAID:	CAL000191159
Contact:	LINDA TARANGIOLI
Telephone:	4083659975
Mailing Name:	Not reported
Mailing Address:	6450 VIA DEL ORO
Mailing City,St,Zip:	SAN JOSE, CA 951190000
Gen County:	Santa Clara
TSD EPA ID:	CAD980884183
TSD County:	Sacramento
Waste Category:	Not reported
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.0025
Facility County:	Santa Clara

Click this hyperlink while viewing on your computer to access
35 additional CA_HAZNET: record(s) in the EDR Site Report.

A5
Target Property

ORCHARD SUPPLY HARDWARE
777 SUNNYVALE SARTGA RD
SUNNYVALE, CA 94087

EMI **S113748594**
N/A

Site 5 of 6 in cluster A

Actual:
128 ft.

EMI:

Year:	2010
County Code:	43
Air Basin:	SF
Facility ID:	19727
Air District Name:	BA
SIC Code:	5072
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:	0.002
Reactive Organic Gases Tons/Yr:	0.0016734
Carbon Monoxide Emissions Tons/Yr:	5.0000000000000001E-3
NOX - Oxides of Nitrogen Tons/Yr:	2.5000000000000001E-2
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0.00204918032786885
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0.002

ORCHARD SUPPLY HARDWARE (Continued) **S113748594**

Year:	2011
County Code:	43
Air Basin:	SF
Facility ID:	19727
Air District Name:	BA
SIC Code:	5072
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:	0.002
Reactive Organic Gases Tons/Yr:	0.0016734
Carbon Monoxide Emissions Tons/Yr:	0.005
NOX - Oxides of Nitrogen Tons/Yr:	0.025
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2012
County Code:	43
Air Basin:	SF
Facility ID:	19727
Air District Name:	BA
SIC Code:	5072
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:	0.002
Reactive Organic Gases Tons/Yr:	0.0016734
Carbon Monoxide Emissions Tons/Yr:	0.005
NOX - Oxides of Nitrogen Tons/Yr:	0.025
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0.0020491803279
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0.002

A6
Target Property

ORCHARD SUPPLY HARDWARE CORP
777 SUNNYVALE SARATOGA RD
SUNNYVALE, CA 94087

HAZNET **S113014965**
N/A

Site 6 of 6 in cluster A

Actual: 128 ft.

HAZNET:

envid:	S113014965
Year:	2013
GEPAID:	CAL000389902
Contact:	LAURA GOLDING
Telephone:	4083652493
Mailing Name:	Not reported
Mailing Address:	6450 VIA DEL ORO
Mailing City,St,Zip:	SAN JOSE, CA 95119
Gen County:	Santa Clara
TSD EPA ID:	NVD980895338
TSD County:	99
Waste Category:	Not reported
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.071
Facility County:	Not reported

ORCHARD SUPPLY HARDWARE CORP (Continued) **S113014965**

envid: S113014965
Year: 2013
GEPAID: CAL000389902
Contact: LAURA GOLDING
Telephone: 4083652493
Mailing Name: Not reported
Mailing Address: 6450 VIA DEL ORO
Mailing City,St,Zip: SAN JOSE, CA 95119
Gen County: Santa Clara
TSD EPA ID: NVD980895338
TSD County: 99
Waste Category: Not reported
Disposal Method: Chemical Reduction With Or Without Precipitation
Tons: 0.014
Facility County: Not reported

envid: S113014965
Year: 2013
GEPAID: CAL000389902
Contact: LAURA GOLDING
Telephone: 4083652493
Mailing Name: Not reported
Mailing Address: 6450 VIA DEL ORO
Mailing City,St,Zip: SAN JOSE, CA 95119
Gen County: Santa Clara
TSD EPA ID: NVD980895338
TSD County: 99
Waste Category: Not reported
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.144
Facility County: Not reported

envid: S113014965
Year: 2005
GEPAID: CAD982340499
Contact: INACT PER 1996 VQ
Telephone: 4083652777
Mailing Name: Not reported
Mailing Address: PO BOX 49027
Mailing City,St,Zip: SAN JOSE, CA 951610000
Gen County: Not reported
TSD EPA ID: NVD980895338
TSD County: Not reported
Waste Category: Unspecified solvent mixture
Disposal Method: Recycler
Tons: 0.22
Facility County: Santa Clara

NPL
Region
NNE
1/2-1
4614 ft.

WESTINGHOUSE ELECTRIC CORP. (SUNNYVALE PLANT)
401 HENDY AVENUE
SUNNYVALE, CA 95117

Database(s): NPL, CERCLIS, RCRA-LQG, US ENG CONTROLS, US INST CONTROL, ROD, PADS, US AIRS, PRP

EDR ID Number: 1000413449
EPA ID Number: CAD001864081

NPL:
EPA ID: CAD001864081
EPA Region: 09
Federal: N
Final Date: 1986-06-10 00:00:00

Category Details:
NPL Status: Currently on the Final NPL
Category Description: Depth To Aquifer-> 50 And <= 100 Feet
Category Value: 57

NPL Status: Currently on the Final NPL
Category Description: Distance To Nearest Population-> 0 And <= 1/4 Mile
Category Value: 10

Site Details:
Site Name: WESTINGHOUSE ELECTRIC CORP. (SUNNYVALE PLANT)
Site Status: Final
Site Zip: 95117
Site City: SUNNYVALE
Site State: CA
Federal Site: No
Site County: SANTA CLARA
EPA Region: 09
Date Proposed: 10/15/84
Date Deleted: Not reported
Date Finalized: 06/10/86

Substance Details:
NPL Status: Currently on the Final NPL
Substance ID: Not reported
Substance: Not reported
CAS #: Not reported
Pathway: Not reported
Scoring: Not reported

NPL Status: Currently on the Final NPL
Substance ID: A029
Substance: DICHLOROBENZENE
CAS #: 25321-22-6
Pathway: GROUND WATER PATHWAY
Scoring: 2

NPL Status: Currently on the Final NPL
Substance ID: A046
Substance: POLYCHLORINATED BIPHENYLS
CAS #: 1336-36-3
Pathway: GROUND WATER PATHWAY

WESTINGHOUSE ELECTRIC CORP. (SUNNYVALE PLANT) (Continued) **1000413449**

Scoring: 4

NPL Status: Currently on the Final NPL
Substance ID: C401
Substance: TRICHLOROBENZENE
CAS #: 12002-48-1
Pathway: GROUND WATER PATHWAY
Scoring: 2

NPL Status: Currently on the Final NPL
Substance ID: U207
Substance: TETRACHLOROBENZENE, 1,2,3,5-
CAS #: 634-90-2
Pathway: GROUND WATER PATHWAY
Scoring: 2

Summary Details:

Conditions at proposal October 15, 1984): Westinghouse Electric Corp. formerly manufactured electrical transformers at a plant covering 75 acres in Sunnyvale, Santa Clara County, California. The facility is surrounded by residential, industrial, and business areas. Monitoring wells on the site are contaminated with PCBs and dichloro-, trichloro-, and tetrachloroben ene, according to analyses conducted by a consultant to Westinghouse. Contamination is believed to have resulted from a leaking PCB storage tank and from locali ed spills. About 300,000 people depend on ground water within 3 miles of the site as a source of drinking water. Westinghouse has removed the leaking tanks and is working with the California Regional Water Quality Control Board CRWQCB) to determine the extent of soil and ground water contamination. This is one of 19 sites in the South Bay Area of San Francisco. Facilities at these sites have used a variety of toxic chemicals, primarily chlorinated organic solvents, which contaminate a common ground water basin. Although these sites are listed separately, EPA intends to apply an area-wide approach to the problem as well as take specific action as necessary.Status June 10, 1986): In July 1985, CRWQCB issued Waste Discharge Requirements to the company for interim measures and a remedial investigation. The requirements are the board s legal mechanism for regulating activities at facilities under its jurisdiction. CRWQCB, in conjunction with EPA and the California Department of Health Services, is considering various response actions at the site.

Site Status Details:
NPL Status: Final
Proposed Date: 10/15/1984
Final Date: 06/10/1986
Deleted Date: Not reported

Narratives Details:
NPL Name: WESTINGHOUSE ELECTRIC CORP. (SUNNYVALE PLANT)
City: SUNNYVALE
State: CA

CERCLIS:
Site ID: 0900956
EPA ID: CAD001864081
Facility County: SANTA CLARA

WESTINGHOUSE ELECTRIC CORP. (SUNNYVALE PLANT) (Continued) **1000413449**

Short Name:	WESTINGHOUSE ELECTRIC COR
Congressional District:	17
IFMS ID:	0997
SMSA Number:	7400
USGC Hydro Unit:	18050003
Federal Facility:	Not a Federal Facility
DMNSN Number:	75.00000
Site Orphan Flag:	N
RCRA ID:	Not reported
USGS Quadrangle:	Not reported
Site Init By Prog:	Not reported
NFRAP Flag:	Not reported
Parent ID:	Not reported
RST Code:	Not reported
EPA Region:	09
Classification:	Manufacturing Plant
Site Settings Code:	SU
NPL Status:	Currently on the Final NPL
DMNSN Unit Code:	ACRE
RBRAC Code:	Not reported
RResp Fed Agency Code:	Not reported
Non NPL Status:	Not reported
Non NPL Status Date:	/ /
Site Fips Code:	06085
CC Concurrence Date:	09/27/00
CC Concurrence FY:	2000
Alias EPA ID:	Not reported
Site FUDS Flag:	Not reported

CERCLIS Site Contact Name(s):

Contact ID:	9000056.00000
Contact Name:	Rosemarie Caraway
Contact Tel:	(415) 972-3158
Contact Title:	Remedial Project Manager (RPM)
Contact Email:	Not reported
Contact ID:	9271145.00000
Contact Name:	Gary Riley
Contact Tel:	(415) 972-3003
Contact Title:	Remedial Project Manager (RPM)
Contact Email:	Not reported
Contact ID:	13002739.00000
Contact Name:	Lily Tavassoli
Contact Tel:	(415) 972-3146
Contact Title:	Remedial Project Manager (RPM)
Contact Email:	Not reported
Contact ID:	13003854.00000
Contact Name:	Leslie Ramirez
Contact Tel:	(415) 972-3978
Contact Title:	Site Assessment Manager (SAM)
Contact Email:	Not reported
Contact ID:	13003858.00000
Contact Name:	Sharon Murray
Contact Tel:	(415) 972-4250

WESTINGHOUSE ELECTRIC CORP. (SUNNYVALE PLANT) (Continued) **1000413449**

Contact Title: Site Assessment Manager (SAM)
Contact Email: Not reported

Contact ID: 13004003.00000
Contact Name: Carl Brickner
Contact Tel: Not reported
Contact Title: Site Assessment Manager (SAM)
Contact Email: Not reported

Contact ID: 13004780.00000
Contact Name: MARK SAMOLIS
Contact Tel: (415) 947-4273
Contact Title: Remedial Project Manager (RPM)
Contact Email: Not reported

CERCLIS Site Alias Name(s):
Alias ID: 101
Alias Name: WESTINGHOUSE ELECTRIC CORP
Alias Address: Not reported
CA
Alias ID: 102
Alias Name: WESTINGHOUSE ELECTRIC CORP. (SUNNYVALE)
Alias Address: Not reported
Not reported
Alias ID: 103
Alias Name: WESTINGHOUSE ELECETRIC CORP. (SUNNYVALE)
Alias Address: HENDY AVE & FAIROAKS AVE
SUNNYVALE, CA 94087
Alias ID: 104
Alias Name: WESTINGHOUSE ELECTRIC CORP. (SUNNYVALE PLANT)
Alias Address: HENDY AVE & FAIROAKS AVE
SUNNYVALE, CA 94087
Alias Comments: Not reported
Site Description: The Westinghouse Sunnyvale Plant is a heavy industrial facility which currently manufactures steam generators, marine propulsion systems and missile-launching systems for the U.S. Department of Defense. Headquartered in Pittsburgh, Pennsylvania, Westinghouse purchased the original plant property in Sunnyvale in 1947 and continued adding adjacent property until 1956. The property currently constitutes 75 acres and generally lies between Hendy Avenue, California Avenue, Fair Oaks Avenue, and N. Sunnyvale Avenue. A parking area across the street on California Avenue is also currently part of the plant property. The facility is located in the Santa Clara Valley, approximately five miles northeast of the Santa Cruz Mountains and five miles south of San Francisco Bay. The regional topography slopes gently downward north-north-east toward the Bay. The area around the site was used primarily for agricultural purposes before it was developed. Since the 1950s and 1960s, it has been developed for light industrial, commercial, or residential use and was substantially landscaped or paved. Natural surface drainage features were straightened and leveed as part of the creation of the urban storm sewer drainage system. While the site itself is zoned for industrial use, it is generally surrounded by residential properties. Some of these parcels abut the site, and others are as near as across a street (100 feet). In the mid-1950s, Westinghouse manufactured transformers in the southeast portion of the site near the Reservoir 2 area in Building 21. The transformers contained Inerteen and mineral oil as thermal insulating fluids. Inerteen is a dense, non-aqueous phase liquid ("DNAPL") which consists of approximately 60 percent PCB Aroclor 1260 and 40 percent trichlorobenzene ("TCB"). Minor amounts of

WESTINGHOUSE ELECTRIC CORP. (SUNNYVALE PLANT) (Continued) **1000413449**

monochlorobenzene ("CB") and dichlorobenzene ("DCB") are also associated with Inerteen. The storage and use of transformer fluids (Inerteen) and mineral oil resulted in contamination of soils and leakage into shallow groundwater (the A and B aquifers) in the Reservoir 2 area. Additionally, general handling practices and the onsite use of Inerteen as a weed killer resulted in the release of PCB into shallow soils along portions of the facility fenceline, in the northwest yard, in the northeast yard, and along the railroad tracks adjacent to Building 61. In 1981, responding to the general public concern expressed regarding PCB, Westinghouse conducted a study to determine the nature and extent of PCB in the soils on site. Extensive shallow soil contamination was discovered, and in 1984 and 1985, under California Regional Water Quality Control Board Orders, Westinghouse removed the PCB contaminated soils along fencelines and railroad spurs. The early 1980 investigations highlighted the area around Reservoir 2 as a more serious problem demanding further investigation. Deep vadose-zone soils and groundwater were affected by release of transformer fluids stored and handled in this area. In the course of the continuing investigations in the Reservoir 2 Area, sampling revealed evidence of fuel hydrocarbon leakage to soils and shallow groundwater from two underground fuel tanks. One of these tanks has been removed and the remaining fuel tank is not in use. From the time PCB contamination was reported in 1981, both the California Water Quality Control Board ("the Board") and the California Department of Health Services ("CC1IS1") were involved in overseeing the investigation and cleanup work done by Westinghouse at this facility. As mentioned above, Westinghouse conducted shallow soil removal actions in 1984 and 1985 under Board Orders. The site was proposed for listing on the National Priority List on October 15, 1984, and final listing occurred on June 1, 1986. A Potential Responsible Party ("PRP") search was conducted in 1986, and the findings reported in a final document dated August 8, 1986. The Board took the lead agency oversight role until December of 1987. At that time the Board requested, due to resource and staffing limitations, that EPA assume the lead agency role. EPA took over the lead, and issued General and Special Notice Letters on January 2, 1988 and March 31, 1988, respectively. An Administrative Order on Consent for the Remedial Investigation and Feasibility Study ("RI/FS") was signed on August 24, 1988. For the next two and one-half years investigations were conducted in a phased approach until sufficient information was available to propose a remedy. The draft RI/FS report was submitted in November of 1990, and the final report was completed on June 11, 1991. A Record of Decision (ROD) addressing Operable Unit 1 of the Westinghouse Superfund Site was signed in October 1991. The cleanup plan outlined in the ROD included leaving contamination above health-based levels in both soil and groundwater on the Site. In the absence of a known technology to effectively remove the DNAPL containing PCBs from the subsurface, a technical impracticability ("TI") waiver was invoked in the ROD. This legal mechanism waived the requirement to meet the Applicable or Relevant and Appropriate Requirements ("ARARs") for PCBs in the source area groundwater where DNAPL is present. The ROD requires that this area be permanently contained and that land use restrictions prevent access to this contamination. Compliance points were set at the perimeter of the DNAPL source area in the groundwater. The soil cleanup level selected in the ROD reflects the 25 ppm Toxic Substances Control Act ("TSCA") level for a limited or restricted use industrial area. The ROD required a cap and restrictions on excavation for those areas where soil PCB concentrations exceed 25 ppm. The asphalt cap is subject to regular inspection, maintenance and repair. The aquifers were classified as a potential source of drinking water and cleanup goals (except for PCBs in the contained source area) were set at maximum contaminant levels ("MCLs"). The 1997 ESD established a remedy change for soils in the North Parking Lot area. (Soil cleanup at the remainder of the Site had already been performed and was therefore not affected

WESTINGHOUSE ELECTRIC CORP. (SUNNYVALE PLANT) (Continued) **1000413449**

by the 1997 ESD.) The 1997 ESD allowed a change in the disposal method for soils contaminated with PCBs at less than 500 ppm; the change was from incineration to landfill disposal for soils removed from the North Parking Lot area with PCB concentrations less than 500 ppm only, where contamination is thought to have been a result of using PCB's as an herbicide. All soils, including those removed from the North Parking Lot area, found during excavation with PCB concentrations greater than 500 ppm were to be incinerated as required in the 1991 ROD. (The 1997 ESD did not change the disposal method for North Parking Lot area soils containing PCBs at concentrations higher than 500 ppm.) A portion of the North Parking Lot area was sold to Valin Corp. on July 31, 1997. This property remains a portion of the Westinghouse Superfund Site as defined at listing and is subject to the IC provisions of this 2008 ESD. An ESD addressing Operable Unit 1 of the Westinghouse Superfund Site was completed in September 2008.

CERCLIS Assessment History:

Action Code:	001
Action:	DISCOVERY
Date Started:	/ /
Date Completed:	12/01/80
Priority Level:	Not reported
Operable Unit:	SITEWIDE
Primary Responsibility:	EPA Fund-Financed
Planning Status:	Not reported
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code:	001
Action:	PRELIMINARY ASSESSMENT
Date Started:	/ /
Date Completed:	07/01/84
Priority Level:	Higher priority for further assessment
Operable Unit:	SITEWIDE
Primary Responsibility:	EPA Fund-Financed
Planning Status:	Not reported
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code:	001
Action:	SITE INSPECTION
Date Started:	12/01/81
Date Completed:	08/01/84
Priority Level:	Higher priority for further assessment
Operable Unit:	SITEWIDE
Primary Responsibility:	EPA Fund-Financed
Planning Status:	Not reported
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

For detailed financial records, contact EDR for a Site Report.:

WESTINGHOUSE ELECTRIC CORP. (SUNNYVALE PLANT) (Continued) **1000413449**

Action Code: 001
Action: HAZARD RANKING SYSTEM PACKAGE
Date Started: / /
Date Completed: 08/01/84
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: PROPOSAL TO NATIONAL PRIORITIES LIST
Date Started: / /
Date Completed: 10/15/84
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: NATIONAL PRIORITIES LIST RESPONSIBLE PARTY SEARCH
Date Started: / /
Date Completed: 08/15/85
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: FINAL LISTING ON NATIONAL PRIORITIES LIST
Date Started: / /
Date Completed: 06/10/86
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: Special Notice Issued
Date Started: / /

WESTINGHOUSE ELECTRIC CORP. (SUNNYVALE PLANT) (Continued) **1000413449**

Date Completed:	04/04/88
Priority Level:	Not reported
Operable Unit:	SITEWIDE
Primary Responsibility:	Federal Enforcement
Planning Status:	Not reported
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code:	001
Action:	COMBINED REMEDIAL INVESTIGATION/FEASIBILITY STUDY
Date Started:	10/01/81
Date Completed:	08/24/88
Priority Level:	Not reported
Operable Unit:	OVERALL SITE
Primary Responsibility:	Federal Enforcement
Planning Status:	Primary
Urgency Indicator:	Not reported
Action Anomaly:	Original Action Take Over

For detailed financial records, contact EDR for a Site Report.:

Action Code:	001
Action:	REMEDIAL INVESTIGATION/FEASIBILITY STUDY NEGOTIATIONS
Date Started:	01/01/88
Date Completed:	08/24/88
Priority Level:	Not reported
Operable Unit:	SITEWIDE
Primary Responsibility:	Federal Enforcement
Planning Status:	Primary
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code:	001
Action:	ADMINISTRATIVE ORDER ON CONSENT
Date Started:	/ /
Date Completed:	08/24/88
Priority Level:	Not reported
Operable Unit:	SITEWIDE
Primary Responsibility:	Federal Enforcement
Planning Status:	Not reported
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code:	002
Action:	REMOVAL ASSESSMENT
Date Started:	07/16/90
Date Completed:	07/16/90
Priority Level:	Not reported
Operable Unit:	SITEWIDE

WESTINGHOUSE ELECTRIC CORP. (SUNNYVALE PLANT) (Continued) **1000413449**

Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: PREPARATION OF COST DOCUMENT PACKAGE
Date Started: / /
Date Completed: 08/30/90
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL INVESTIGATION/FEASIBILITY STUDY
Date Started: 08/24/88
Date Completed: 10/16/91
Priority Level: Not reported
Operable Unit: OVERALL SITE
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: New Action Resulting from Take Over

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: RECORD OF DECISION
Date Started: / /
Date Completed: 10/16/91
Priority Level: Final Remedy Selected at Site
Operable Unit: OVERALL SITE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: UNILATERAL ADMIN ORDER
Date Started: / /
Date Completed: 02/06/92
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

WESTINGHOUSE ELECTRIC CORP. (SUNNYVALE PLANT) (Continued) **1000413449**

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002
Action: ADMINISTRATIVE ORDER ON CONSENT
Date Started: / /
Date Completed: 02/06/92
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002
Action: ADMINISTATIVE/VOLUNTARY COST RECOVERY
Date Started: / /
Date Completed: 04/24/92
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: ADMINISTATIVE/VOLUNTARY COST RECOVERY
Date Started: / /
Date Completed: 07/13/92
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: REMOVAL ASSESSMENT
Date Started: / /
Date Completed: 12/14/92
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

WESTINGHOUSE ELECTRIC CORP. (SUNNYVALE PLANT) (Continued) **1000413449**

Action Code:	001
Action:	REMEDIAL DESIGN/REMEDIAL ACTION NEGOTIATIONS
Date Started:	03/31/92
Date Completed:	09/29/93
Priority Level:	Not reported
Operable Unit:	SITEWIDE
Primary Responsibility:	Federal Enforcement
Planning Status:	Primary
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code:	001
Action:	POTENTIALLY RESPONSIBLE PARTY REMEDIAL DESIGN
Date Started:	02/06/92
Date Completed:	06/28/94
Priority Level:	Not reported
Operable Unit:	OVERALL SITE
Primary Responsibility:	Responsible Party
Planning Status:	Primary
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code:	002
Action:	POTENTIALLY RESPONSIBLE PARTY REMEDIAL DESIGN
Date Started:	10/01/92
Date Completed:	06/28/94
Priority Level:	Not reported
Operable Unit:	OVERALL SITE
Primary Responsibility:	Responsible Party
Planning Status:	Not reported
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code:	002
Action:	PREPARATION OF COST DOCUMENT PACKAGE
Date Started:	/ /
Date Completed:	06/20/95
Priority Level:	Not reported
Operable Unit:	SITEWIDE
Primary Responsibility:	Federal Enforcement
Planning Status:	Not reported
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code:	002
Action:	POTENTIALLY RESPONSIBLE PARTY REMEDIAL ACTION
Date Started:	06/28/94
Date Completed:	09/30/96
Priority Level:	Not reported

WESTINGHOUSE ELECTRIC CORP. (SUNNYVALE PLANT) (Continued) **1000413449**

Operable Unit: OVERALL SITE
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Long Term Action
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL ACTION
Date Started: 06/28/94
Date Completed: 09/30/96
Priority Level: Not reported
Operable Unit: OVERALL SITE
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: Explanation Of Significant Differences
Date Started: / /
Date Completed: 03/14/97
Priority Level: Not reported
Operable Unit: OVERALL SITE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 003
Action: PREPARATION OF COST DOCUMENT PACKAGE
Date Started: / /
Date Completed: 04/02/97
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 003
Action: ADMINISTATIVE/VOLUNTARY COST RECOVERY
Date Started: / /
Date Completed: 06/23/97
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported

WESTINGHOUSE ELECTRIC CORP. (SUNNYVALE PLANT) (Continued) **1000413449**

Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: PRELIMINARY CLOSE-OUT REPORT PREPARED
Date Started: / /
Date Completed: 09/27/00
Priority Level: Not reported
Operable Unit: OVERALL SITE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: FIVE-YEAR REVIEW
Date Started: / /
Date Completed: 09/28/01
Priority Level: Not reported
Operable Unit: OVERALL SITE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002
Action: FIVE-YEAR REVIEW
Date Started: 04/03/06
Date Completed: 09/27/06
Priority Level: Not reported
Operable Unit: OVERALL SITE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002
Action: Explanation Of Significant Differences
Date Started: / /
Date Completed: 09/30/08
Priority Level: Not reported
Operable Unit: OVERALL SITE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

WESTINGHOUSE ELECTRIC CORP. (SUNNYVALE PLANT) (Continued) **1000413449**

Action Code: 003
Action: FIVE-YEAR REVIEW
Date Started: / /
Date Completed: 09/29/11
Priority Level: Not reported
Operable Unit: OVERALL SITE
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 003
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL ACTION
Date Started: 03/19/97
Date Completed: / /
Priority Level: Not reported
Operable Unit: OVERALL SITE
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Early Action
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Federal Register Details:
Fed Register Date: 06/10/86
Fed Register Volume: 51
Page Number: 21054

Fed Register Date: 10/15/84
Fed Register Volume: 49
Page Number: 40320

Click this hyperlink while viewing on your computer to access
182 additional US CERCLIS Financial: record(s) in the EDR Site Report.

RCRA-LQG:
Date form received by agency: 03/01/2014
Facility name: NORTHROP GRUMMAN SYSTEMS CORPORATION
Facility address: 401 E HENDY AVE
SUNNYVALE, CA 94088
EPA ID: CAD001864081
Mailing address: E HENDY AVE
SUNNYVALE, CA 94088
Contact: NOY PHENGRASAMY
Contact address: E HENDY AVE
SUNNYVALE, CA 94088
Contact country: Not reported
Contact telephone: (408) 735-3528
Contact email: NOY.PHENGRASAMY@NGC.COM
EPA Region: 09
Land type: Private
Classification: Large Quantity Generator
Description: Handler: generates 1,000 kg or more of hazardous waste during any

WESTINGHOUSE ELECTRIC CORP. (SUNNYVALE PLANT) (Continued) **1000413449**

calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:
Owner/operator name: NORTHROP GRUMMAN SYSTEMS CORPORATION
Owner/operator address: FAIRVIEW PARK DR
FALLS CHURCH, VA 22042
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 04/01/1996
Owner/Op end date: Not reported

Owner/operator name: NORTHROP GRUMMAN SYSTEMS CORPORATION
Owner/operator address: FAIRVIEW PARK DR
FALLS CHURCH, VA 22042
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 04/01/1996
Owner/Op end date: Not reported

Owner/operator name: NORTHROP GRUMMAN SYSTEMS CORP
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: 04/01/1996
Owner/Op end date: Not reported

Owner/operator name: NORTHROP GRUMMAN SYSTEMS CORP.
Owner/operator address: 2980 FAIRVIEW PARK DR
FALLS CHURCH, VA 22042
Owner/operator country: US
Owner/operator telephone: 703-280-2900
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 04/01/1996
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No

WESTINGHOUSE ELECTRIC CORP. (SUNNYVALE PLANT) (Continued) **1000413449**

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

Universal Waste Summary:

Waste type:	E
Accumulated waste on-site:	Yes
Generated waste on-site:	No

. Waste code:	D001
. Waste name:	IGNITABLE WASTE
. Waste code:	D002
. Waste name:	CORROSIVE WASTE
. Waste code:	D003
. Waste name:	REACTIVE WASTE
. Waste code:	D005
. Waste name:	BARIUM
. Waste code:	D006
. Waste name:	CADMIUM
. Waste code:	D007
. Waste name:	CHROMIUM
. Waste code:	D008
. Waste name:	LEAD
. Waste code:	D018
. Waste name:	BENZENE
. Waste code:	D029
. Waste name:	1,1-DICHLOROETHYLENE
. Waste code:	D035
. Waste name:	METHYL ETHYL KETONE
. Waste code:	F002
. Waste name:	THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS 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 F001, F004, AND

WESTINGHOUSE ELECTRIC CORP. (SUNNYVALE PLANT) (Continued) **1000413449**

F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: U080
. Waste name: METHANE, DICHLORO- (OR) METHYLENE CHLORIDE

. Waste code: U226
. Waste name: ETHANE, 1,1,1-TRICHLORO- (OR) METHYL CHLOROFORM

Historical Generators:
Date form received by agency: 01/18/2013
Site name: NORTHROP GRUMMAN SYSTEMS CORP
Classification: Large Quantity Generator

. Waste code: 122
. Waste name: 122

. Waste code: 123
. Waste name: 123

. Waste code: 134
. Waste name: 134

. Waste code: 151
. Waste name: 151

. Waste code: 171
. Waste name: 171

. Waste code: 181
. Waste name: 181

. Waste code: 211
. Waste name: 211

. Waste code: 221

WESTINGHOUSE ELECTRIC CORP. (SUNNYVALE PLANT) (Continued) **1000413449**

. Waste name: 221

. Waste code: 261
. Waste name: 261

. Waste code: 272
. Waste name: 272

. Waste code: 331
. Waste name: 331

. Waste code: 343
. Waste name: 343

. Waste code: 352
. Waste name: 352

. Waste code: 461
. Waste name: 461

. Waste code: 491
. Waste name: 491

. Waste code: 512
. Waste name: 512

. Waste code: 541
. Waste name: 541

. Waste code: 591
. Waste name: 591

. Waste code: 791
. Waste name: 791

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D005
. Waste name: BARIUM

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D018
. Waste name: BENZENE

. Waste code: D035

WESTINGHOUSE ELECTRIC CORP. (SUNNYVALE PLANT) (Continued) **1000413449**

. Waste name: METHYL ETHYL KETONE

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS 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 F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Date form received by agency: 02/09/2012
Site name: NORTHROP GRUMMAN SYSTEMS CORPORATION
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D005
. Waste name: BARIUM

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D009

WESTINGHOUSE ELECTRIC CORP. (SUNNYVALE PLANT) (Continued) **1000413449**

. Waste name: MERCURY

. Waste code: D018
. Waste name: BENZENE

. Waste code: D019
. Waste name: CARBON TETRACHLORIDE

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS 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 F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: U196
. Waste name: PYRIDINE

Date form received by agency: 06/15/2010
Site name: NORTHROP GRUMMAN ES - MARINE SYSTEMS
Classification: Large Quantity Generator

. Waste code: 134
. Waste name: 134

. Waste code: 181
. Waste name: 181

. Waste code: 211

WESTINGHOUSE ELECTRIC CORP. (SUNNYVALE PLANT) (Continued) **1000413449**

. Waste name: 211

. Waste code: 272
. Waste name: 272

. Waste code: 331
. Waste name: 331

. Waste code: 343
. Waste name: 343

. Waste code: 352
. Waste name: 352

. Waste code: 541
. Waste name: 541

. Waste code: 591
. Waste name: 591

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D011
. Waste name: SILVER

. Waste code: D018
. Waste name: BENZENE

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS 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 F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL

WESTINGHOUSE ELECTRIC CORP. (SUNNYVALE PLANT) (Continued) **1000413449**

ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Date form received by agency: 02/18/2007
Site name: NORTHROP GRUMMAN SYSTEMS CORPORATION
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D011
. Waste name: SILVER

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS 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 F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL

WESTINGHOUSE ELECTRIC CORP. (SUNNYVALE PLANT) (Continued) **1000413449**

ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Date form received by agency: 02/16/2006
Site name: NORTHROP GRUMMAN SYSTEMS CORPORATION
Classification: Large Quantity Generator

. Waste code: 172
. Waste name: 172

. Waste code: 181
. Waste name: 181

. Waste code: 272
. Waste name: 272

. Waste code: 331
. Waste name: 331

. Waste code: 343
. Waste name: 343

. Waste code: 352
. Waste name: 352

. Waste code: 541
. Waste name: 541

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008

WESTINGHOUSE ELECTRIC CORP. (SUNNYVALE PLANT) (Continued) **1000413449**

. Waste name: LEAD

. Waste code: D011
. Waste name: SILVER

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS 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 F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Date form received by agency: 02/11/2004
Site name: NORTHROP GRUMMAN MARINE SYSTEMS
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008

WESTINGHOUSE ELECTRIC CORP. (SUNNYVALE PLANT) (Continued) **1000413449**

. Waste name: LEAD

. Waste code: D011
. Waste name: SILVER

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS 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 F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Date form received by agency: 03/21/2003
Site name: NORTHROP GRUMMAN MARINE SYSTEM
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D005
. Waste name: BARIUM

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007

WESTINGHOUSE ELECTRIC CORP. (SUNNYVALE PLANT) (Continued) **1000413449**

. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D009
. Waste name: MERCURY

. Waste code: D011
. Waste name: SILVER

. Waste code: F001
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLORETHYLENE, 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.

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS 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 F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Date form received by agency: 02/15/2002
Site name: NORTHROP GRUMMAN MARINE SYSTEMS
Classification: Large Quantity Generator

WESTINGHOUSE ELECTRIC CORP. (SUNNYVALE PLANT) (Continued) **1000413449**

. Waste code: 141
. Waste name: 141

. Waste code: 172
. Waste name: 172

. Waste code: 181
. Waste name: 181

. Waste code: 211
. Waste name: 211

. Waste code: 213
. Waste name: 213

. Waste code: 223
. Waste name: 223

. Waste code: 272
. Waste name: 272

. Waste code: 331
. Waste name: 331

. Waste code: 343
. Waste name: 343

. Waste code: 541
. Waste name: 541

. Waste code: 725
. Waste name: 725

. Waste code: 791
. Waste name: 791

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D005
. Waste name: BARIUM

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D009
. Waste name: MERCURY

WESTINGHOUSE ELECTRIC CORP. (SUNNYVALE PLANT) (Continued) **1000413449**

. Waste code: D011
. Waste name: SILVER

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: D039
. Waste name: TETRACHLOROETHYLENE

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS 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 F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Date form received by agency: 09/19/2001
Site name: NORTHROP GRUMMAN MARINE SYSTEM
Classification: Large Quantity Generator

. Waste code: D000
. Waste name: Not Defined

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D005
. Waste name: BARIUM

WESTINGHOUSE ELECTRIC CORP. (SUNNYVALE PLANT) (Continued) **1000413449**

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D009
. Waste name: MERCURY

. Waste code: D011
. Waste name: SILVER

. Waste code: D035
. Waste name: METHYL ETHYL KETONE

. Waste code: F001
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLORETHYLENE, 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.

. Waste code: F002
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS 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 F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F003
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

. Waste code: F005
. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS

WESTINGHOUSE ELECTRIC CORP. (SUNNYVALE PLANT) (Continued) **1000413449**

LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Date form received by agency: 10/12/2000
Site name: NORTHROP GRUMMAN MARINE SYSTEMS
Classification: Large Quantity Generator

Date form received by agency: 03/04/1999
Site name: NORTHROP GRUMMAN MARINE SYSTEMS
Classification: Large Quantity Generator

Date form received by agency: 09/01/1996
Site name: NORTHROP GRUMMAN MARINE SYSTEM
Classification: Large Quantity Generator

Date form received by agency: 02/28/1996
Site name: WESTINGHOUSE ELECTRIC CORPORATION
Classification: Large Quantity Generator

Date form received by agency: 03/28/1994
Site name: WESTINGHOUSE ELECTRIC CO
Classification: Large Quantity Generator

Date form received by agency: 02/26/1992
Site name: WESTINGHOUSE ELECTRIC CORP
Classification: Large Quantity Generator

Date form received by agency: 04/12/1990
Site name: WESTINGHOUSE ELECTRIC CORP
Classification: Large Quantity Generator

Biennial Reports:

Last Biennial Reporting Year: 2013

Annual Waste Handled:

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.
Amount (Lbs): 12307

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.
Amount (Lbs): 6963

Waste code: D005
Waste name: BARIUM

WESTINGHOUSE ELECTRIC CORP. (SUNNYVALE PLANT) (Continued) **1000413449**

Amount (Lbs):	347
Waste code:	D006
Waste name:	CADMIUM
Amount (Lbs):	1462
Waste code:	D007
Waste name:	CHROMIUM
Amount (Lbs):	15911
Waste code:	D008
Waste name:	LEAD
Amount (Lbs):	1809
Waste code:	D009
Waste name:	MERCURY
Amount (Lbs):	347
Waste code:	D018
Waste name:	BENZENE
Amount (Lbs):	347
Waste code:	D019
Waste name:	CARBON TETRACHLORIDE
Amount (Lbs):	347
Waste code:	D035
Waste name:	METHYL ETHYL KETONE
Amount (Lbs):	6616
Waste code:	F002
Waste name:	THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2-TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE LISTED IN F001, F004, OR F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
Amount (Lbs):	14300
Waste code:	F003
Waste name:	THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
Amount (Lbs):	18232
Waste code:	F005
Waste name:	THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL

WESTINGHOUSE ELECTRIC CORP. (SUNNYVALE PLANT) (Continued) **1000413449**

KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Amount (Lbs): 18232

Waste code: U196
Waste name: PYRIDINE
Amount (Lbs): 347

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: Generators - Pre-transport
Date violation determined: 03/05/2009
Date achieved compliance: 03/05/2009
Violation lead agency: EPA
Enforcement action: Not reported
Enforcement action date: 03/18/2009
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 06/09/2010
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 07/09/2009
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 03/05/2009
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - Pre-transport
Date achieved compliance: 03/05/2009
Evaluation lead agency: EPA

Evaluation date: 05/14/2008
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 07/15/2004
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported

WESTINGHOUSE ELECTRIC CORP. (SUNNYVALE PLANT) (Continued) **1000413449**

Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 06/21/2003
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

US ENG CONTROLS:
EPA ID: CAD001864081
Site ID: 0900956
Name: WESTINGHOUSE ELECTRIC CORP. (SUNNYVALE PLANT)
Address: 401 HENDY AVENUE
SUNNYVALE, CA 95117
EPA Region: 09
County: SANTA CLARA
Event Code: Not reported
Actual Date: 03/31/1997
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 001
Action Name: Explanation Of Significant Differences
Action Completion date: 03/14/1997
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Disposal
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 001
Action Name: Explanation Of Significant Differences
Action Completion date: 03/14/1997
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Excavation
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 10/16/1991
Operable Unit: 01
Contaminated Media : Groundwater
Engineering Control: Air Stripping
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 001

WESTINGHOUSE ELECTRIC CORP. (SUNNYVALE PLANT) (Continued) **1000413449**

Action Name: RECORD OF DECISION
Action Completion date: 10/16/1991
Operable Unit: 01
Contaminated Media : Groundwater
Engineering Control: Carbon Adsorption
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 10/16/1991
Operable Unit: 01
Contaminated Media : Groundwater
Engineering Control: Discharge
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 10/16/1991
Operable Unit: 01
Contaminated Media : Groundwater
Engineering Control: Extraction
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 10/16/1991
Operable Unit: 01
Contaminated Media : Groundwater
Engineering Control: Filtration
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 10/16/1991
Operable Unit: 01
Contaminated Media : Groundwater
Engineering Control: Monitoring
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 10/16/1991

WESTINGHOUSE ELECTRIC CORP. (SUNNYVALE PLANT) (Continued) **1000413449**

Operable Unit: 01
Contaminated Media : Groundwater
Engineering Control: Residuals Disposal
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 10/16/1991
Operable Unit: 01
Contaminated Media : Groundwater
Engineering Control: UV Oxidation
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 10/16/1991
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Cap
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 10/16/1991
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Excavation
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 10/16/1991
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Incineration
Contact Name: Not reported
Contact Phone and Ext: Not reported
Latitude: Not reported
Longitude: Not reported

US INST CONTROL:
EPA ID: CAD001864081
Site ID: 0900956
Name: WESTINGHOUSE ELECTRIC CORP. (SUNNYVALE PLANT)

WESTINGHOUSE ELECTRIC CORP. (SUNNYVALE PLANT) (Continued) **1000413449**

Action Name: Explanation Of Significant Differences
Address: 401 HENDY AVENUE
SUNNYVALE, CA 95117
EPA Region: 09
County: SANTA CLARA
Event Code: Not reported
Inst. Control: Covenant
Actual Date: 09/30/2008
Complet. Date: 09/30/2008
Operable Unit: 01
Contaminated Media : Soil
Contact Name : Not reported
Contact Phone and Ext : Not reported
Latitude : Not reported
Longitude : Not reported

EPA ID: CAD001864081
Site ID: 0900956
Name: WESTINGHOUSE ELECTRIC CORP. (SUNNYVALE PLANT)
Action Name: RECORD OF DECISION
Address: 401 HENDY AVENUE
SUNNYVALE, CA 95117
EPA Region: 09
County: SANTA CLARA
Event Code: Not reported
Inst. Control: Institutional Controls, (N.O.S.)
Actual Date: 12/31/1991
Complet. Date: 10/16/1991
Operable Unit: 01
Contaminated Media : Groundwater
Contact Name : Not reported
Contact Phone and Ext : Not reported
Latitude : Not reported
Longitude : Not reported

EPA ID: CAD001864081
Site ID: 0900956
Name: WESTINGHOUSE ELECTRIC CORP. (SUNNYVALE PLANT)
Action Name: RECORD OF DECISION
Address: 401 HENDY AVENUE
SUNNYVALE, CA 95117
EPA Region: 09
County: SANTA CLARA
Event Code: Not reported
Inst. Control: Institutional Controls, (N.O.S.)
Actual Date: 12/31/1991
Complet. Date: 10/16/1991
Operable Unit: 01
Contaminated Media : Soil
Contact Name : Not reported
Contact Phone and Ext : Not reported
Latitude : Not reported
Longitude : Not reported

ROD:
Full-text of USEPA Record of Decision(s) is available from EDR.

WESTINGHOUSE ELECTRIC CORP. (SUNNYVALE PLANT) (Continued) **1000413449**

PADS:

EPAID:	CAD001864081
Facility name:	WESTINGHOUSE ELEC CORP
Facility Address:	401 E HENDY AVE SUNNYVALE, CA 94088-3499
Facility country:	US
Generator:	Yes
Storer:	No
Transporter:	No
Disposer:	No
Research facility:	No
Smelter:	No
Facility owner name:	WESTINGHOUSE ELEC CORP
Contact title:	Not reported
Contact name:	FROMAN TOM
Contact tel:	(408)735-4400
Contact extension:	Not reported
Mailing address:	401 E HENDY AVE M/S 73-1 BOX 3499 SUNNYVALE, CA 94088-3499
Mailing country:	US
Cert. title:	Not reported
Cert. name:	Not reported
Cert. date:	04/02/1990
Date received:	05/17/1990

AIRS (AFS):

Compliance and Violation Data Major Sources:

EPA plant ID:	110000781805
Plant name:	NORTHROP GRUMMAN CORP
Plant address:	401 E HENDY AVE, 62/1 SUNNYVALE, CA 94086
County:	SANTA CLARA
Region code:	09
Dunn & Bradst #:	Not reported
Air quality cntrl region:	030
Sic code:	4953
Sic code desc:	REFUSE SYSTEMS
North Am. industrial classf:	332439
NAIC code description:	Other Metal Container Manufacturing
Default compliance status:	IN COMPLIANCE - INSPECTION
Default classification:	POTENTIAL EMISSIONS ARE BELOW ALL APPLICABLE MAJOR SOURCE THRESHOLDS IF AND ONLY IF THE SOURCE COMPLIES WITH FEDERALLY ENFORCEABLE REGULATIONS OR LIMITATIONS.
Govt facility:	ALL OTHER FACILITIES NOT OWNED OR OPERATED BY A FEDERAL, STATE, OR LOCAL GOVERNMENT
Current HPV:	Not reported

PRP:

PRP name:	WESTINGHOUSE ELECTRIC CORPORATION WESTINGHOUSE ELECTRIC CORPORATION WESTINGHOUSE ELECTRIC CORPORATION WESTINGHOUSE ELECTRIC CORPORATION

B7
NE
< 1/8
0.115 mi.
607 ft.

112 E EL CAMINO REAL
SUNNYVALE, CA 94087

EDR US Hist Auto Stat **1015160386**
N/A

Site 1 of 3 in cluster B

Relative:
Lower

Actual:
124 ft.

EDR Historical Auto Stations:

Name:	FIRESTONE TIRE & SERVICE CNTR
Year:	2003
Address:	112 E EL CAMINO REAL
Name:	FIRESTONE TIRE & SERVICE CTR
Year:	2004
Address:	112 E EL CAMINO REAL

B8
NE
< 1/8
0.115 mi.
607 ft.

FORMER FIRESTONE TIRE
112 E. EL CAMINO REAL
SUNNYVALE, CA 94087

LUST **S110042530**
N/A

Site 2 of 3 in cluster B

Relative:
Lower

Actual:
124 ft.

LUST:

Region:	STATE
Global Id:	T10000001595
Latitude:	37.3665930068508
Longitude:	-122.031669616699
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	02/11/2010
Lead Agency:	SANTA CLARA COUNTY LOP
Case Worker:	LL
Local Agency:	SANTA CLARA COUNTY LOP
RB Case Number:	14-796
LOC Case Number:	06S2W36K01f
File Location:	Stored electronically as an E-file
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Diesel, Waste Oil / Motor / Hydraulic / Lubricating
Site History:	2009 In May, 6 hydraulic lifts and an underground storage tank (UST) were removed from the site. The UST was reported to have contained hydraulic oil. Soil samples (HL1 through HL5 and HL7) were collected beneath the hydraulic lifts at depths of 6.5-9.5 feet below the ground surface. None of these samples were reported to contain Polychlorinated Biphenyls (PCBs) above the laboratory reporting limit. Sample HL1 (7 ft bgs) was reported to contain 85 parts per million (ppm) Total Petroleum Hydrocarbons as Diesel (TPHd) and 210 ppm Hydrocarbon Oil Range Organics (HORO). TPH as Gasoline (TPHg), Fuel Oxygenates (FOs) and Volatile Organic Compounds (VOCs) were not reported to be present above the laboratory reporting limits. Additional excavation was conducted in June in this area and sample HL1-2 was collected from 9.5 ft bgs and was reported to contain 3,500 ppm TPHd and 4,700 ppm HORO. In August, additional soil was removed and sample HL1-3 was collected at 11.5 ft bgs and reported to contain 3.3 ppm TPHd and HORO was not present above the laboratory reporting limit. Sample HL7 (6.5 ft bgs) was reported to contain 900 ppm TPHd and 2,700 ppm HORO. TPHg, FOs and VOCs were not reported to be present above the laboratory reporting limits. Additional excavation was conducted in June in this area and sample HL7-2 was collected from 11.5 ft bgs and was reported to contain 410 ppm TPHd and 750 ppm HORO. In August, additional soil was removed and sample HL703 was collected at 12 ft bgs and reported to contain 570 ppm TPHd and 1,500

FORMER FIRESTONE TIRE (Continued) **S110042530**

ppm HORO. 2 soil samples (T1 and D1) were collected from beneath the UST. Sample T1 was collected from the bottom of the excavation at approximately 5 ft bgs and D1 was collected from stained soil within the excavation at 8 ft bgs. Additional soil was removed in the area of sample D1 from the excavation and sample BD1 was collected from 10 ft bgs. Sample D1 was reported to have the maximum concentrations of 4.3 ppm TPHg, 15,000 ppm TPHd, 32,000 ppm HORO, 0.360 ppm Acetone, 0.180 ppm 1,2,4-Trimethylbenzene, 2.8 ppm PCB 1248, 2.8 PCB-1260, and very low concentrations of other VOCs. Benzene and FOs were not reported to be present above the laboratory reporting limits. Sample BD1 was reported to contain 84 ppm TPHd, 210 ppm HORO, and 0.062 ppm PCB-1260. All other Constituents of Concern (COCs) were not reported to be present above the laboratory reporting limits. Additional excavation was conducted in June and sample BD1-2 was collected from 12.5 ft bgs and reported to contain 10 ppm TPHd. HORO was not reported to be present above the laboratory reporting limit. In September, a boring (SB2) was advanced to 60 ft bgs within the HL7 excavation. The boring was allowed to site for 3 hours and groundwater did not enter the boring. Soil samples were analyzed from 14 and 16 ft bgs. The 14 foot sample was reported to contain 22 ppm TPHd and 88 ppm HORO and the 16 foot sample was not reported to have either constituent present above the laboratory reporting limits. Additional soil was removed from the HL7 excavation and sample HL7-4 was collected from 16 ft bgs and was reported to contain 71 ppm TPHd and 97 ppm HORO.

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T10000001595
Contact Type:	Local Agency Caseworker
Contact Name:	LANI LEE
Organization Name:	SANTA CLARA COUNTY LOP
Address:	1555 BERGER DR, SUITE 300
City:	SAN JOSE
Email:	lani.lee@deh.sccgov.org
Phone Number:	Not reported

Global Id:	T10000001595
Contact Type:	Regional Board Caseworker
Contact Name:	NATHAN KING
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY ST., SUITE 1400
City:	OAKLAND
Email:	nking@waterboards.ca.gov
Phone Number:	Not reported

Status History:

Global Id:	T10000001595
Status:	Open - Site Assessment
Status Date:	10/15/2009

Global Id:	T10000001595
Status:	Completed - Case Closed
Status Date:	02/11/2010

Global Id: T10000001595

FORMER FIRESTONE TIRE (Continued) **S110042530**

Status: Open - Case Begin Date
Status Date: 05/12/2009

Regulatory Activities:
Global Id: T10000001595
Action Type: ENFORCEMENT
Date: 02/11/2010
Action: Closure/No Further Action Letter

Global Id: T10000001595
Action Type: REMEDIATION
Date: 05/12/2009
Action: Excavation

Global Id: T10000001595
Action Type: Other
Date: 05/12/2009
Action: Leak Discovery

Global Id: T10000001595
Action Type: Other
Date: 05/12/2009
Action: Leak Stopped

Global Id: T10000001595
Action Type: Other
Date: 09/17/2009
Action: Leak Reported

Global Id: T10000001595
Action Type: ENFORCEMENT
Date: 10/16/2009
Action: Notice of Responsibility

LUST SANTA CLARA:
Region: SANTA CLARA
SCVWD ID: 06S2W36K01F
Date Closed: 02/11/2010
EDR Link ID: 06S2W36K01F

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9 **PEP BOYS NO 840** **RCRA-SQG** **1000985199**
East **170 E EL CAMINO** **CA0001018274**
< 1/8 **SUNNYVALE, CA 94088**
0.117 mi.
620 ft.

Relative:
Lower

Actual:
125 ft.

RCRA-SQG:
Date form received by agency: 01/30/1995
Facility name: PEP BOYS NO 840
Facility address: 170 E EL CAMINO
SUNNYVALE, CA 94088
EPA ID: CA0001018274
Mailing address: W ALLEGHENY AVE
PHILADELPHIA, PA 19132
Contact: MEGAN BROWN
Contact address: 3111 W ALLEGHENY AVE

PEP BOYS NO 840 (Continued) **1000985199**

PHILADELPHIA, PA 19132
Contact country: US
Contact telephone: (215) 227-9017
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: PEP BOYS MANNY MOE JACK
Owner/operator address: 3111 W ALLEGHENY AVE
PHILADELPHIA, PA 19132
Owner/operator country: Not reported
Owner/operator telephone: (215) 227-9277
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: 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

Violation Status: No violations found

B10 **WALGREENS NO 7080** **RCRA-SQG** **1010313600**
NE **105 E EL CAMINO REAL** **CAR000175562**
1/8-1/4 **SUNNYVALE, CA 94087**
0.127 mi.
673 ft. **Site 3 of 3 in cluster B**

Relative: **Lower**

Actual: **123 ft.**

RCRA-SQG:
Date form received by agency: 07/08/2006
Facility name: WALGREENS NO 7080
Facility address: 105 E EL CAMINO REAL
SUNNYVALE, CA 94087
EPA ID: CAR000175562
Mailing address: 200 WILMOT RD
MS NO 2171
DEERFIELD, IL 60015
Contact: WILLIAM GUZULES

WALGREENS NO 7080 (Continued) **1010313600**

Contact address:	200 WILMOT RD MS NO 2171 DEERFIELD, IL 60015
Contact country:	US
Contact telephone:	408-991-9003
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:	ORESTE ALLARIO
Owner/operator address:	102 CUMULUS AVE SUNNYVALE, CA 94087
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	10/01/1989
Owner/Op end date:	Not reported

Owner/operator name:	WALGREEN CO
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:	10/25/2002
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

. Waste code:	D011
. Waste name:	SILVER

Violation Status: No violations found

11
NNE
1/8-1/4
0.147 mi.
777 ft.

WALGREENS NO 7080
103 W EL CAMINO REAL
SUNNYVALE, CA 94087

RCRA-SQG **1006805586**
FINDS **CAR000129577**

Relative:
Lower

Actual:
123 ft.

RCRA-SQG:

Date form received by agency:	06/07/2014
Facility name:	WALGREENS #7080
Facility address:	105 E EL CAMINO REAL SUNNYVALE, CA 94087
EPA ID:	CAR000129577
Mailing address:	GREY HAWKS CT STE 200 CARLSBAD, CA 92010
Contact:	KARINA E ROMERO
Contact address:	GREY HAWKS CT STE 200 CARLSBAD, CA 92010
Contact country:	Not reported
Contact telephone:	(760) 602-8887
Contact email:	KROMERO@3ECOMPANY.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:	STEPHEN ALLARIO
Owner/operator address:	OCOEE FALLS DRIVE CHAPEL HILL, NC 27517
Owner/operator country:	Not reported
Owner/operator telephone:	(919) 542-2897
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	01/09/2007
Owner/Op end date:	Not reported

Owner/operator name:	WALGREEN CO
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	01/09/2007
Owner/Op end date:	Not reported

Owner/operator name:	WALGREEN COMPANY
Owner/operator address:	200 WILMONT RD NO 2214 DEERFIELD, IL 60015
Owner/operator country:	Not reported
Owner/operator telephone:	(847) 914-3193
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

WALGREENS NO 7080 (Continued) **1006805586**

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

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D009
. Waste name: MERCURY

. Waste code: D010
. Waste name: SELENIUM

. Waste code: D024
. Waste name: M-CRESOL

. Waste code: P001
. Waste name: 2H-1-BENZOPYRAN-2-ONE, 4-HYDROXY-3-(3-OXO-1-PHENYLBUTYL)-, & SALTS, WHEN PRESENT AT CONCENTRATIONS GREATER THAN 0.3% (OR) WARFARIN, & SALTS, WHEN PRESENT AT CONCENTRATIONS GREATER THAN 0.3%

. Waste code: P075
. Waste name: NICOTINE, & SALTS (OR) PYRIDINE, 3-(1-METHYL-2-PYRROLIDINYL)-,(S)-, & SALTS

. Waste code: U034
. Waste name: ACETALDEHYDE, TRICHLORO- (OR) CHLORAL

. Waste code: U165
. Waste name: NAPHTHALENE

Historical Generators:
Date form received by agency: 10/23/2002
Site name: WALGREENS NO 7080
Classification: Small Quantity Generator

. Waste code: D000

WALGREENS NO 7080 (Continued) **1006805586**

. Waste name: Not Defined

. Waste code: D011
. Waste name: SILVER

Violation Status: No violations found

FINDS:

Registry ID: 110013378754

Environmental Interest/Information System
California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

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.

C12 **SAFEWAY STORE NO 2887** **RCRA-LQG 1000341724**
East **150 E EL CAMINO REAL** **FINDS CAD000629311**
1/8-1/4 **SUNNYVALE, CA 94087**
0.149 mi.
785 ft. **Site 1 of 2 in cluster C**

Relative:
Lower

Actual:
124 ft.

RCRA-LQG:
Date form received by agency: 07/23/2013
Facility name: SAFEWAY STORE NO 2887
Facility address: 150 E EL CAMINO REAL
SUNNYVALE, CA 94087
EPA ID: CAD000629311
Mailing address: 5918 STONERIDGE MALL RD
PLEASANTON, CA 94588
Contact: KEITH B POWERS
Contact address: 5918 STONERIDGE MALL RD
PLEASANTON, CA 94588
Contact country: US
Contact telephone: 925-226-5655
Contact email: KEITH.POWERS@SAFEWAY.COM
EPA Region: 09
Classification: Large Quantity Generator
Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than

SAFEWAY STORE NO 2887 (Continued) **1000341724**

100 kg of that material at any time

Owner/Operator Summary:
Owner/operator name: SAFEWAY
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: 11/10/2010
Owner/Op end date: Not reported

Owner/operator name: SAFEWAY INC
Owner/operator address: 5918 STONERIDGE MALL RD
PLEASANTON, CA 94588
Owner/operator country: US
Owner/operator telephone: 925-467-3000
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 11/10/2010
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

. Waste code: 122
. Waste name: 122

. Waste code: 135
. Waste name: 135

. Waste code: 311
. Waste name: 311

. Waste code: 561
. Waste name: 561

. Waste code: 791
. Waste name: 791

. Waste code: D002

SAFEWAY STORE NO 2887 (Continued) **1000341724**

. Waste name: CORROSIVE WASTE

. Waste code: P075
. Waste name: NICOTINE, & SALTS (OR) PYRIDINE, 3-(1-METHYL-2-PYRROLIDINYL)-,(S)-, & SALTS

Historical Generators:
Date form received by agency: 12/17/2012
Site name: SAFEWAY STORE NO 2887
Classification: Not a generator, verified

Date form received by agency: 05/31/2012
Site name: SAFEWAY STORE NO 2887
Classification: Large Quantity Generator

. Waste code: 122
. Waste name: 122

. Waste code: 135
. Waste name: 135

. Waste code: 311
. Waste name: 311

. Waste code: 561
. Waste name: 561

. Waste code: 791
. Waste name: 791

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: P075
. Waste name: NICOTINE, & SALTS (OR) PYRIDINE, 3-(1-METHYL-2-PYRROLIDINYL)-,(S)-, & SALTS

Date form received by agency: 08/07/1995
Site name: TESORO GASOLINE DIGAS
Classification: Small Quantity Generator

Violation Status: No violations found

FINDS:

Registry ID: 110055074716

Environmental Interest/Information System
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.

C13
East
1/8-1/4
0.149 mi.
785 ft.

Relative:
Lower

Actual:
124 ft.

150 E EL CAMINO REAL
SUNNYVALE, CA 94087

Site 2 of 2 in cluster C

EDR US Hist Auto Stat **1015236960**
N/A

EDR Historical Auto Stations:

Name:	FIRESTONE TIRE & SERVICE CENTERS SUNNYVALE
Year:	1999
Address:	150 E EL CAMINO REAL
Name:	FIRESTONE TIRE & SERVICE CENTERS SUNNYVALE
Year:	2000
Address:	150 E EL CAMINO REAL

14
West
1/8-1/4
0.161 mi.
848 ft.

Relative:
Higher

Actual:
132 ft.

THRIFTY OIL
773 MATHILDA
SUNNYVALE, CA 94086

HIST CORTESE **1001610407**
N/A

HIST CORTESE:

Region:	CORTESE
Facility County Code:	43
Reg By:	LTNKA
Reg Id:	43-1473

D15
North
1/8-1/4
0.166 mi.
878 ft.

Relative:
Lower

Actual:
123 ft.

597 S MURPHY AVE
SUNNYVALE, CA 94086

Site 1 of 2 in cluster D

EDR US Hist Auto Stat **1015565385**
N/A

EDR Historical Auto Stations:

Name:	S & S TIRE & AUTO REPAIR
Year:	1999
Address:	597 S MURPHY AVE
Name:	S & S TIRE & AUTOMOTIVE
Year:	2003
Address:	597 S MURPHY AVE
Name:	S & S TIRE & AUTOMOTIVE
Year:	2004
Address:	597 S MURPHY AVE
Name:	S & S TIRE AUTO REPAIR
Year:	2005
Address:	597 S MURPHY AVE
Name:	S & S TIRE AUTO REPAIR
Year:	2006
Address:	597 S MURPHY AVE
Name:	S & S TIRE & AUTO REPAIR
Year:	2009
Address:	597 S MURPHY AVE

(Continued) **1015565385**

Name: S & S TIRE & AUTO REPAIR
Year: 2010
Address: 597 S MURPHY AVE

Name: S & S AUTO REPAIR
Year: 2011
Address: 597 S MURPHY AVE

Name: S & S AUTO REPAIR
Year: 2012
Address: 597 S MURPHY AVE

E16 **EDR US Hist Auto Stat** **1015242245**
NNW **152 W EL CAMINO REAL** **N/A**
1/8-1/4 **SUNNYVALE, CA 94087**
0.169 mi.
890 ft. **Site 1 of 2 in cluster E**

Relative:
Lower

Actual:
124 ft.

EDR Historical Auto Stations:

Name: PEP BOYS AUTOMOTIVE SPRCNTR
Year: 2001
Address: 152 W EL CAMINO REAL

Name: PEP BOYS AUTOMOTIVE SPRCNTR
Year: 2004
Address: 152 W EL CAMINO REAL

Name: PEP BOYS
Year: 2007
Address: 152 W EL CAMINO REAL

E17 **PEP BOYS NO 840** **RCRA NonGen / NLR** **1000978210**
NNW **152 W EL CAMINO REAL** **CA0000968784**
1/8-1/4 **SUNNYVALE, CA 94088**
0.169 mi.
890 ft. **Site 2 of 2 in cluster E**

Relative:
Lower

Actual:
124 ft.

RCRA NonGen / NLR:

Date form received by agency: 08/14/1995
Facility name: PEP BOYS NO 840
Facility address: 152 W EL CAMINO REAL
SUNNYVALE, CA 94088
EPA ID: CA0000968784
Mailing address: W ALLEGHENY AVE
PHILADLEPHIA, PA 19132
Contact: BROWN MEGAN
Contact address: 3111 W ALLEGHENY AVE
PHILADLEPHIA, PA 19132
Contact country: US
Contact telephone: (215) 227-9017
Contact email: Not reported
EPA Region: 09
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

PEP BOYS NO 840 (Continued) **1000978210**

Owner/Operator Summary:
- Owner/operator name: THE PEP BOYS MANNY MOE JACK 840
- Owner/operator address: 3111 W ALLEGHENY AVE
  PHILADELPHIA, PA 19132
- Owner/operator country: Not reported
- Owner/operator telephone: (215) 227-9277
- 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: 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

Violation Status: No violations found

D18
North
1/8-1/4
0.179 mi.
943 ft.

590 S MURPHY AVE
SUNNYVALE, CA 94086

Site 2 of 2 in cluster D

EDR US Hist Cleaners **1015077902**
N/A

Relative:
Lower

Actual:
122 ft.

EDR Historical Cleaners:

Name:	ROSE CLEANERS
Year:	1999
Address:	590 S MURPHY AVE
Name:	ROSE CLEANERS
Year:	2000
Address:	590 S MURPHY AVE
Name:	ROSE CLEANERS
Year:	2001
Address:	590 S MURPHY AVE
Name:	ROSE CLEANERS
Year:	2003
Address:	590 S MURPHY AVE
Name:	ROSE CLEANERS
Year:	2005
Address:	590 S MURPHY AVE
Name:	ROSE CLEANERS

(Continued) **1015077902**

Year: 2006
Address: 590 S MURPHY AVE

Name: ROSE CLEANERS
Year: 2010
Address: 590 S MURPHY AVE

Name: ROSE CLEANERS
Year: 2011
Address: 590 S MURPHY AVE

Name: ROSE CLEANERS
Year: 2012
Address: 590 S MURPHY AVE

---

19 **EDR US Hist Auto Stat** **1015265282**
East **170 E EL CAMINO REAL** **N/A**
1/8-1/4 **SUNNYVALE, CA 94087**
0.181 mi.
955 ft.

Relative:
Lower

Actual:
124 ft.

EDR Historical Auto Stations:
Name: PEP BOYS AUTOMOTIVE SPRCNTR
Year: 2001
Address: 170 E EL CAMINO REAL

Name: PEP BOYS AUTOMOTIVE SPRCNTR
Year: 2002
Address: 170 E EL CAMINO REAL

Name: PEP BOYS AUTOMOTIVE SPRCNTR
Year: 2003
Address: 170 E EL CAMINO REAL

---

20 **CAMINO HEALTHCARE MAMMO** **RCRA-SQG** **1000886364**
NNE **201 OLD SAN FRANCISCO RD** **CA0000197996**
1/8-1/4 **SUNNYVALE, CA 94088**
0.186 mi.
980 ft.

Relative:
Lower

Actual:
121 ft.

RCRA-SQG:
Date form received by agency: 12/05/1994
Facility name: CAMINO HEALTHCARE MAMMO
Facility address: 201 OLD SAN FRANCISCO RD
SUNNYVALE, CA 940883496
EPA ID: CA0000197996
Contact: DIANE LORD
Contact address: 301 OLD SAN FRANCISCO RD
SUNNYVALE, CA 940883496
Contact country: US
Contact telephone: (408) 730-4310
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

CAMINO HEALTHCARE MAMMO (Continued) **1000886364**

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: CAMINO HEALTHCARE
Owner/operator address: 2500 GRANT RD
MOUNTAIN VIEW, CA 94040
Owner/operator country: Not reported
Owner/operator telephone: (408) 730-4310
Legal status: Other
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: 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

Violation Status: No violations found

21
NE
1/8-1/4
0.195 mi.
1028 ft.

CAMINO HEALTHCARE MAIN CLINIC
301 OLD SAN FRANCISCO RD
SUNNYVALE, CA 94088

RCRA-SQG **1000886359**
CA0000197574

Relative:
Lower

Actual:
120 ft.

RCRA-SQG:
Date form received by agency: 12/05/1994
Facility name: CAMINO HEALTHCARE MAIN CLINIC
Facility address: 301 OLD SAN FRANCISCO RD
SUNNYVALE, CA 940883496
EPA ID: CA0000197574
Contact: DIANE LORD
Contact address: 301 OLD SAN FRANCISCO RD
SUNNYVALE, CA 940883496
Contact country: US
Contact telephone: (408) 730-4310
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

CAMINO HEALTHCARE MAIN CLINIC (Continued) **1000886359**

hazardous waste at any time

Owner/Operator Summary:
- Owner/operator name: CAMINO HEALTHCARE
- Owner/operator address: 2500 GRANT RD
  MOUNTAIN VIEW, CA 94040
- Owner/operator country: Not reported
- Owner/operator telephone: (408) 730-4310
- Legal status: Other
- 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: 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

Violation Status: No violations found

22
NW
1/8-1/4
0.202 mi.
1064 ft.

REGAL STATION #434
496 EL CAMINO REAL
SUNNYVALE, CA 94087

HIST UST **U001594968**
N/A

Relative:
Lower

Actual:
127 ft.

HIST UST:
- Region: STATE
- Facility ID: 00000063366
- Facility Type: Gas Station
- Other Type: Not reported
- Contact Name: WALT SNELLING
- Telephone: 9169211100
- Owner Name: REGAL STATION INC.
- Owner Address: 1765 CHALLENGE WAY
- Owner City,St,Zip: SACRAMENTO, CA 95815
- Total Tanks: 0004

- Tank Num: 001
- Container Num: 434-P1
- Year Installed: Not reported
- Tank Capacity: 00100000
- Tank Used for: PRODUCT
- Type of Fuel: PREMIUM
- Container Construction Thickness: 1/4
- Leak Detection: Stock Inventor, Vapor Sniff Well, 10

REGAL STATION #434 (Continued) **U001594968**

Tank Num:	002
Container Num:	434-D1
Year Installed:	Not reported
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	1/4
Leak Detection:	Stock Inventor, Vapor Sniff Well, 10

Tank Num:	003
Container Num:	434-U1
Year Installed:	Not reported
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	1/4
Leak Detection:	Stock Inventor, Vapor Sniff Well

Tank Num:	004
Container Num:	434-R1
Year Installed:	Not reported
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	REGULAR
Container Construction Thickness:	1/4
Leak Detection:	Stock Inventor, Vapor Sniff Well, 10

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23 **EDR US Hist Auto Stat** **1015559096**
North **576 S MURPHY AVE** **N/A**
1/8-1/4 **SUNNYVALE, CA 94086**
0.209 mi.
1104 ft.

Relative: EDR Historical Auto Stations:
Lower

Name:	KRAGEN AUTO PARTS
Year:	2003
Address:	576 S MURPHY AVE

Actual:
121 ft.

Name:	KRAGEN AUTO PARTS
Year:	2006
Address:	576 S MURPHY AVE

F24 **EDR US Hist Auto Stat** **1015364547**
NNW **251 W EL CAMINO REAL** **N/A**
1/8-1/4 **SUNNYVALE, CA 94087**
0.213 mi.
1122 ft. **Site 1 of 2 in cluster F**

Relative: EDR Historical Auto Stations:
Lower

Name:	DA LES AUTO BODY
Year:	2001
Address:	251 W EL CAMINO REAL

Actual:
124 ft.

F25 NNW 1/8-1/4 0.213 mi. 1122 ft. **DA LES AUTO BODY**
251 W EL CAMINO REAL
SUNNYVALE, CA 94087

Database(s): **RCRA-SQG, FINDS** EDR ID Number: **1000281446** EPA ID Number: **CAD981635790**

Site 2 of 2 in cluster F

Relative: Lower

Actual: 124 ft.

RCRA-SQG:

Date form received by agency:	01/30/1986
Facility name:	DA LES AUTO BODY
Facility address:	251 W EL CAMINO REAL SUNNYVALE, CA 94087
EPA ID:	CAD981635790
Mailing address:	W EL CAMINO REAL SUNNYVALE, CA 94087
Contact:	ENVIRONMENTAL MANAGER
Contact address:	251 W EL CAMINO REAL SUNNYVALE, CA 94087
Contact country:	US
Contact telephone:	(408) 746-0897
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:	RESSA LESLIE
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:	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

DA LES AUTO BODY (Continued) **1000281446**

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

Violation Status: No violations found

FINDS:

Registry ID: 110002732856

Environmental Interest/Information System
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 facillties 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.

G26 **EDR US Hist Cleaners** **1015036283**
NNW **295 W EL CAMINO REAL** **N/A**
1/8-1/4 **SUNNYVALE, CA 94087**
0.232 mi.
1224 ft. **Site 1 of 2 in cluster G**

Relative:
Lower

EDR Historical Cleaners:
Name: SANTIAGOS MAGIC CLEANERS
Year: 2001
Actual: Address: 295 W EL CAMINO REAL
125 ft.

Name: SANTIAGOS MAGIC CLEANERS
Year: 2002
Address: 295 W EL CAMINO REAL

G27 **EXXON** **HIST CORTESE** **S104161833**
NNW **496 EL CAMINO REAL** **N/A**
1/8-1/4 **SUNNYVALE, CA**
0.247 mi.
1302 ft. **Site 2 of 2 in cluster G**

Relative:
Lower

HIST CORTESE:
Region: CORTESE
Facility County Code: 43
Actual: Reg By: LTNKA
125 ft. Reg Id: 43-1105

H28 **ARCO** **HIST CORTESE** **S101304374**
WNW **707 MATHILDA** **N/A**
1/8-1/4 **SUNNYVALE, CA 94087**
0.250 mi.
1319 ft. **Site 1 of 2 in cluster H**

Relative: HIST CORTESE:
Higher Region: CORTESE
Facility County Code: 43
Actual: Reg By: LTNKA
131 ft. Reg Id: 43-0116

H29 **PRESTIGE STATIONS INC. 5106** **HIST UST** **U001594908**
WNW **707 S MATHILDA AVE** **N/A**
1/8-1/4 **SUNNYVALE, CA 94086**
0.250 mi.
1319 ft. **Site 2 of 2 in cluster H**

Relative: HIST UST:
Higher Region: STATE
Facility ID: 00000067553
Actual: Facility Type: Gas Station
131 ft. Other Type: Not reported
Contact Name: Not reported
Telephone: 4082456777
Owner Name: ATLANTIC RICHFIELD COMPANY
Owner Address: 515 SOUTH FLOWER STREET
Owner City,St,Zip: LOS ANGELES, CA 90071
Total Tanks: 0003

Tank Num: 001
Container Num: 3
Year Installed: Not reported
Tank Capacity: 00010000
Tank Used for: WASTE
Type of Fuel: 1
Container Construction Thickness: X
Leak Detection: Visual, Stock Inventor, Pressure Test

Tank Num: 002
Container Num: 2
Year Installed: Not reported
Tank Capacity: 00008000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Container Construction Thickness: Not reported
Leak Detection: Visual, Stock Inventor, Pressure Test

Tank Num: 003
Container Num: 3
Year Installed: Not reported
Tank Capacity: 00004000
Tank Used for: PRODUCT
Type of Fuel: PREMIUM
Container Construction Thickness: Not reported
Leak Detection: Visual, Stock Inventor, Pressure Test

I30 **ARCO #5334** **LUST S101594391**
NW **707 S MATHILDA AVE** **CA FID UST N/A**
1/4-1/2 **SUNNYVALE, CA 94087**
0.283 mi.
1493 ft. **Site 1 of 3 in cluster I**

Relative:
Higher

Actual:
129 ft.

LUST SANTA CLARA:
Region: SANTA CLARA
SCVWD ID: 06S2W36E01F
Date Closed: 07/02/2001
EDR Link ID: 06S2W36E01F

Region: SANTA CLARA
SCVWD ID: 06S2W36E05F
Date Closed: 09/24/2004
EDR Link ID: 06S2W36E05F

CA FID UST:
Facility ID: 43000355
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 4082456777
Mail To: Not reported
Mailing Address: 17315 STUDEBAKER RD
Mailing Address 2: Not reported
Mailing City,St,Zip: SUNNYVALE 94087
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

I31 **ARCO #5334** **LUST U003942704**
NW **707 S MATHILDA AVE** **HIST LUST N/A**
1/4-1/2 **SUNNYVALE, CA 94087** **UST**
0.283 mi. **SWEEPS UST**
1493 ft. **Site 2 of 3 in cluster I**

Relative:
Higher

Actual:
129 ft.

LUST REG 2:
Region: 2
Facility Id: Not reported
Facility Status: Case Closed
Case Number: 06S2W36E01f
How Discovered: Not reported
Leak Cause: Not reported
Leak Source: Not reported
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 9/19/1988
Pollution Characterization Began: 10/30/1989
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: 9/29/1997
Date Post Remedial Action Monitoring Began: Not reported

ARCO #5334 (Continued) **U003942704**

Region: 2
Facility Id: Not reported
Facility Status: Preliminary site assessment underway
Case Number: 06S2W36E05f
How Discovered: Not reported
Leak Cause: Unknown
Leak Source: Piping
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 3/9/2004
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

HIST LUST SANTA CLARA:
Region: SANTA CLARA
Region Code: 2
SCVWD ID: 06S2W36E01
Oversite Agency: SCVWD
Date Listed: 1987-01-01 00:00:00
Closed Date: 2001-07-02 00:00:00

Region: SANTA CLARA
Region Code: 2
SCVWD ID: 06S2W36E05
Oversite Agency: SCVWD
Date Listed: 2004-03-09 00:00:00
Closed Date: 2004-09-24 00:00:00

UST:
Facility ID: 43-007-433184
Permitting Agency: SUNNYVALE, CITY OF
Latitude: 37.36735
Longitude: -122.03711

SWEEPS UST:
Status: Active
Comp Number: 3184
Number: 1
Board Of Equalization: Not reported
Referral Date: 04-23-92
Action Date: 04-23-92
Created Date: 02-28-92
Owner Tank Id: Not reported
SWRCB Tank Id: 43-007-003184-318405
Tank Status: A
Capacity: 12000
Active Date: 04-23-92
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: 4

Status: Active

ARCO #5334 (Continued) **U003942704**

Comp Number: 3184
Number: 1
Board Of Equalization: Not reported
Referral Date: 04-23-92
Action Date: 04-23-92
Created Date: 02-28-92
Owner Tank Id: Not reported
SWRCB Tank Id: 43-007-003184-318406
Tank Status: A
Capacity: 12000
Active Date: 04-23-92
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 3184
Number: 1
Board Of Equalization: Not reported
Referral Date: 04-23-92
Action Date: 04-23-92
Created Date: 02-28-92
Owner Tank Id: Not reported
SWRCB Tank Id: 43-007-003184-318407
Tank Status: A
Capacity: 12000
Active Date: 04-23-92
Tank Use: M.V. FUEL
STG: P
Content: LEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 3184
Number: 1
Board Of Equalization: Not reported
Referral Date: 04-23-92
Action Date: 04-23-92
Created Date: 02-28-92
Owner Tank Id: Not reported
SWRCB Tank Id: 43-007-003184-318408
Tank Status: A
Capacity: 550
Active Date: 04-23-92
Tank Use: OIL
STG: W
Content: WASTE OIL
Number Of Tanks: Not reported

I32 **ARCO #5334** **LUST U001594902**
NW **707 S MATHILDA AVE** **HIST UST N/A**
1/4-1/2 **SUNNYVALE, CA 94087**
0.283 mi.
1493 ft. **Site 3 of 3 in cluster I**

Relative:
Higher

Actual:
129 ft.

LUST:

Region:	STATE
Global Id:	T0608525632
Latitude:	37.368748
Longitude:	-122.037552
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	09/24/2004
Lead Agency:	SANTA CLARA COUNTY LOP
Case Worker:	UST
Local Agency:	SANTA CLARA COUNTY LOP
RB Case Number:	Not reported
LOC Case Number:	Not reported
File Location:	Stored electronically as an E-file
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0608525632
Contact Type:	Regional Board Caseworker
Contact Name:	BARBARA SIEMINSKI
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY STREET, SUITE 1400
City:	OAKLAND
Email:	bsieminski@waterboards.ca.gov
Phone Number:	Not reported

Global Id:	T0608525632
Contact Type:	Local Agency Caseworker
Contact Name:	UST CASE WORKER
Organization Name:	SANTA CLARA COUNTY LOP
Address:	1555 Berger Drive, Suite 300
City:	SAN JOSE
Email:	Not reported
Phone Number:	4089183400

Status History:

Global Id:	T0608525632
Status:	Completed - Case Closed
Status Date:	09/24/2004

Global Id:	T0608525632
Status:	Open - Case Begin Date
Status Date:	09/08/2003

Global Id:	T0608525632
Status:	Open - Site Assessment
Status Date:	03/09/2004

ARCO #5334 (Continued) **U001594902**

Regulatory Activities:

Global Id:	T0608525632
Action Type:	ENFORCEMENT
Date:	03/09/2004
Action:	Notice of Responsibility - #43363
Global Id:	T0608525632
Action Type:	ENFORCEMENT
Date:	04/04/2004
Action:	Staff Letter - #43781
Global Id:	T0608525632
Action Type:	RESPONSE
Date:	06/25/2004
Action:	Preliminary Site Assessment Report
Global Id:	T0608525632
Action Type:	Other
Date:	09/08/2003
Action:	Leak Reported
Region:	STATE
Global Id:	T0608500184
Latitude:	37.3688952459397
Longitude:	-122.037398815155
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	07/02/2001
Lead Agency:	SANTA CLARA COUNTY LOP
Case Worker:	UST
Local Agency:	SANTA CLARA COUNTY LOP
RB Case Number:	Not reported
LOC Case Number:	Not reported
File Location:	Stored electronically as an E-file
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0608500184
Contact Type:	Regional Board Caseworker
Contact Name:	ZSC
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY STREET, SUITE 1400
City:	OAKLAND
Email:	Not reported
Phone Number:	Not reported
Global Id:	T0608500184
Contact Type:	Local Agency Caseworker
Contact Name:	UST CASE WORKER
Organization Name:	SANTA CLARA COUNTY LOP
Address:	1555 Berger Drive, Suite 300
City:	SAN JOSE

ARCO #5334 (Continued) **U001594902**

Email: Not reported
Phone Number: 4089183400

Status History:
Global Id: T0608500184
Status: Completed - Case Closed
Status Date: 07/02/2001

Global Id: T0608500184
Status: Open - Case Begin Date
Status Date: 10/14/1986

Global Id: T0608500184
Status: Open - Remediation
Status Date: 09/29/1997

Global Id: T0608500184
Status: Open - Site Assessment
Status Date: 09/19/1988

Global Id: T0608500184
Status: Open - Site Assessment
Status Date: 10/30/1989

Regulatory Activities:
Global Id: T0608500184
Action Type: REMEDIATION
Date: 09/29/1997
Action: Excavation

Global Id: T0608500184
Action Type: REMEDIATION
Date: 09/29/1997
Action: Pump & Treat (P&T) Groundwater

Global Id: T0608500184
Action Type: REMEDIATION
Date: 09/29/1997
Action: Soil Vapor Extraction (SVE)

Global Id: T0608500184
Action Type: ENFORCEMENT
Date: 12/08/1999
Action: Staff Letter - #29278

Global Id: T0608500184
Action Type: ENFORCEMENT
Date: 10/20/1997
Action: Staff Letter - #29270

Global Id: T0608500184
Action Type: RESPONSE
Date: 12/13/1999
Action: Monitoring Report - Quarterly

Global Id: T0608500184

ARCO #5334 (Continued) **U001594902**

Action Type: RESPONSE
Date: 10/27/1997
Action: Monitoring Report - Quarterly

Global Id: T0608500184
Action Type: RESPONSE
Date: 03/19/1997
Action: Monitoring Report - Quarterly

Global Id: T0608500184
Action Type: ENFORCEMENT
Date: 09/19/1988
Action: Notice of Responsibility - #40089

Global Id: T0608500184
Action Type: ENFORCEMENT
Date: 03/18/1997
Action: Staff Letter - #29265

Global Id: T0608500184
Action Type: Other
Date: 10/14/1986
Action: Leak Reported

HIST UST:
Region: STATE
Facility ID: 00000039486
Facility Type: Gas Station
Other Type: MOTOR VEHICLE FUEL S
Contact Name: MAHMOUD H. RAD
Telephone: 4087391540
Owner Name: MOBIL OIL CORPORATION
Owner Address: 612 SO. FLOWER STREET
Owner City,St,Zip: LOS ANGELES, CA 90017
Total Tanks: 0004

Tank Num: 001
Container Num: 1
Year Installed: 1972
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Container Construction Thickness: Not reported
Leak Detection: Visual, Stock Inventor, Pressure Test

Tank Num: 002
Container Num: 2
Year Installed: 1972
Tank Capacity: 00008000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Container Construction Thickness: Not reported
Leak Detection: Visual, Stock Inventor, Pressure Test

Tank Num: 003
Container Num: 3

ARCO #5334 (Continued) **U001594902**

Year Installed:	1972
Tank Capacity:	00004000
Tank Used for:	PRODUCT
Type of Fuel:	06
Container Construction Thickness:	Not reported
Leak Detection:	Visual, Stock Inventor, Pressure Test
Tank Num:	004
Container Num:	4
Year Installed:	1972
Tank Capacity:	00000550
Tank Used for:	WASTE
Type of Fuel:	WASTE OIL
Container Construction Thickness:	Not reported
Leak Detection:	Visual

J33 **EXXON R/S 70117** **LUST** **U001594955**
NW **496 W EL CAMINO REAL** **HIST UST** **N/A**
1/4-1/2 **SUNNYVALE, CA 94087** **SWEEPS UST**
0.295 mi.
1555 ft. **Site 1 of 2 in cluster J**

Relative:
Lower

Actual:
127 ft.

LUST:

Region:	STATE
Global Id:	T0608501097
Latitude:	37.368493
Longitude:	-122.036441
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	06/18/2004
Lead Agency:	SANTA CLARA COUNTY LOP
Case Worker:	UST
Local Agency:	SANTA CLARA COUNTY LOP
RB Case Number:	Not reported
LOC Case Number:	Not reported
File Location:	Stored electronically as an E-file
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0608501097
Contact Type:	Regional Board Caseworker
Contact Name:	ZSC
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY STREET, SUITE 1400
City:	OAKLAND
Email:	Not reported
Phone Number:	Not reported
Global Id:	T0608501097
Contact Type:	Local Agency Caseworker
Contact Name:	UST CASE WORKER
Organization Name:	SANTA CLARA COUNTY LOP
Address:	1555 Berger Drive, Suite 300
City:	SAN JOSE

EXXON R/S 70117 (Continued) **U001594955**

Email: Not reported
Phone Number: 4089183400

Status History:
Global Id: T0608501097
Status: Completed - Case Closed
Status Date: 06/18/2004

Global Id: T0608501097
Status: Open - Case Begin Date
Status Date: 03/15/1985

Global Id: T0608501097
Status: Open - Site Assessment
Status Date: 10/01/1992

Regulatory Activities:
Global Id: T0608501097
Action Type: ENFORCEMENT
Date: 10/15/1996
Action: Staff Letter - #29312

Global Id: T0608501097
Action Type: ENFORCEMENT
Date: 06/15/1999
Action: Staff Letter - #29304

Global Id: T0608501097
Action Type: RESPONSE
Date: 01/28/1997
Action: Monitoring Report - Quarterly

Global Id: T0608501097
Action Type: RESPONSE
Date: 07/30/1999
Action: Monitoring Report - Quarterly

Global Id: T0608501097
Action Type: ENFORCEMENT
Date: 01/09/1996
Action: Notice of Responsibility - #40092

Global Id: T0608501097
Action Type: Other
Date: 03/15/1985
Action: Leak Reported

LUST SANTA CLARA:
Region: SANTA CLARA
SCVWD ID: 06S2W36F01F
Date Closed: 06/18/2004
EDR Link ID: 06S2W36F01F

HIST UST:

EXXON R/S 70117 (Continued) **U001594955**

Region:	STATE
Facility ID:	00000020305
Facility Type:	Gas Station
Other Type:	Not reported
Contact Name:	RANDY LEAVITT
Telephone:	5122232631
Owner Name:	AUTOTRONIC SYSTEMS, INC.
Owner Address:	3643 E. COMMERCE
Owner City,St,Zip:	SAN ANTONIO, TX 78220
Total Tanks:	0004
Tank Num:	001
Container Num:	112
Year Installed:	1978
Tank Capacity:	00012408
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor
Tank Num:	002
Container Num:	113
Year Installed:	1978
Tank Capacity:	00012408
Tank Used for:	PRODUCT
Type of Fuel:	REGULAR
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor
Tank Num:	003
Container Num:	114
Year Installed:	1978
Tank Capacity:	00010152
Tank Used for:	PRODUCT
Type of Fuel:	PREMIUM
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor
Tank Num:	004
Container Num:	115
Year Installed:	1978
Tank Capacity:	00012408
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor

SWEEPS UST:

Status:	Not reported
Comp Number:	111
Number:	Not reported
Board Of Equalization:	44-000285
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	43-000-000111-000001

EXXON R/S 70117 (Continued) **U001594955**

Tank Status:	Not reported
Capacity:	12000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	PRM UNLEADED
Number Of Tanks:	4

Status:	Not reported
Comp Number:	111
Number:	Not reported
Board Of Equalization:	44-000285
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	43-000-000111-000002
Tank Status:	Not reported
Capacity:	10000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	DIESEL
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	111
Number:	Not reported
Board Of Equalization:	44-000285
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	43-000-000111-000003
Tank Status:	Not reported
Capacity:	12000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	111
Number:	Not reported
Board Of Equalization:	44-000285
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	43-000-000111-000004
Tank Status:	Not reported
Capacity:	12000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	REG UNLEADED

EXXON R/S 70117 (Continued) **U001594955**

Number Of Tanks: Not reported

J34 **EXXON #7-0117** **LUST S103880907**
NW **496 W EL CAMINO REAL** **HIST LUST N/A**
1/4-1/2 **SUNNYVALE, CA 94087**
0.295 mi.
1555 ft. **Site 2 of 2 in cluster J**

Relative:
Lower

Actual:
127 ft.

LUST REG 2:
Region: 2
Facility Id: Not reported
Facility Status: Case Closed
Case Number: 06S2W36F01f
How Discovered: Not reported
Leak Cause: Not reported
Leak Source: Not reported
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 10/1/1992
Pollution Characterization Began: 10/1/1992
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

HIST LUST SANTA CLARA:
Region: SANTA CLARA
Region Code: 2
SCVWD ID: 06S2W36F01
Oversite Agency: SCVWD
Date Listed: 1988-01-01 00:00:00
Closed Date: 2004-06-18 00:00:00

K35 **RAINES CHEVROLET** **RCRA NonGen / NLR 1000313712**
NW **666 W EL CAMINO REAL** **FINDS CAD981453996**
1/4-1/2 **SUNNYVALE, CA 94087** **HIST CORTESE**
0.427 mi. **LUST**
2257 ft. **Site 1 of 3 in cluster K** **HIST LUST**
UST
Relative: **HIST UST**
Higher **SWEEPS UST**
EMI

Actual:
129 ft.

RCRA NonGen / NLR:
Date form received by agency: 02/11/1986
Facility name: RAINES CHEVROLET
Facility address: 666 W EL CAMINO REAL
SUNNYVALE, CA 94087
EPA ID: CAD981453996
Mailing address: P O BOX 60189
SUNNYVALE, CA 94088
Contact: ENVIRONMENTAL MANAGER
Contact address: 666 W EL CAMINO REAL
SUNNYVALE, CA 94087
Contact country: US
Contact telephone: (408) 736-3496

RAINES CHEVROLET (Continued) **1000313712**

Contact email: Not reported
EPA Region: 09
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: JACK MILLER
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: 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

Violation Status: No violations found

FINDS:

Registry ID: 110001191923

Environmental Interest/Information System
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.

RAINES CHEVROLET (Continued) **1000313712**

CRITERIA AND HAZARDOUS AIR POLLUTANT INVENTORY

HIST CORTESE:

Region:	CORTESE
Facility County Code:	43
Reg By:	LTNKA
Reg Id:	43-1809

LUST:

Region:	STATE
Global Id:	T0608501737
Latitude:	37.368443330506
Longitude:	-122.039110064507
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	08/18/1997
Lead Agency:	SANTA CLARA COUNTY LOP
Case Worker:	UST
Local Agency:	SANTA CLARA COUNTY LOP
RB Case Number:	Not reported
LOC Case Number:	Not reported
File Location:	Stored electronically as an E-file
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0608501737
Contact Type:	Regional Board Caseworker
Contact Name:	ZSC
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY STREET, SUITE 1400
City:	OAKLAND
Email:	Not reported
Phone Number:	Not reported

Global Id:	T0608501737
Contact Type:	Local Agency Caseworker
Contact Name:	UST CASE WORKER
Organization Name:	SANTA CLARA COUNTY LOP
Address:	1555 Berger Drive, Suite 300
City:	SAN JOSE
Email:	Not reported
Phone Number:	4089183400

Status History:

Global Id:	T0608501737
Status:	Completed - Case Closed
Status Date:	08/18/1997

Global Id:	T0608501737
Status:	Open - Case Begin Date
Status Date:	06/13/1990

RAINES CHEVROLET (Continued) **1000313712**

Global Id: T0608501737
Status: Open - Site Assessment
Status Date: 06/13/1990

Regulatory Activities:
Global Id: T0608501737
Action Type: ENFORCEMENT
Date: 03/04/1997
Action: Notice of Responsibility - #40091

Global Id: T0608501737
Action Type: Other
Date: 11/05/1990
Action: Leak Reported

LUST REG 2:
Region: 2
Facility Id: Not reported
Facility Status: Case Closed
Case Number: 06S2W36E03f
How Discovered: Not reported
Leak Cause: Not reported
Leak Source: Not reported
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 6/13/1990
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

LUST SANTA CLARA:
Region: SANTA CLARA
SCVWD ID: 06S2W36E03F
Date Closed: 08/18/1997
EDR Link ID: 06S2W36E03F

HIST LUST SANTA CLARA:
Region: SANTA CLARA
Region Code: 2
SCVWD ID: 06S2W36E03
Oversite Agency: SCVWD
Date Listed: 1991-01-18 00:00:00
Closed Date: 1997-08-18 00:00:00

UST:
Facility ID: 1559
Permitting Agency: SUNNYVALE, CITY OF
Latitude: 37.3709242
Longitude: -122.0383034

HIST UST:

RAINES CHEVROLET (Continued) **1000313712**

Region:	STATE
Facility ID:	00000009892
Facility Type:	Other
Other Type:	AUTO AGENCY
Contact Name:	DLR: JACK R. MILLER
Telephone:	4087363496
Owner Name:	JACK R. MILLER (INDIVIDUAL)
Owner Address:	14440 PIKE ROAD
Owner City,St,Zip:	SARATOGA, CA 95070
Total Tanks:	0003
Tank Num:	001
Container Num:	1
Year Installed:	1974
Tank Capacity:	00001000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	Vapor Sniff Well, Groundwater Monitoring Well
Tank Num:	002
Container Num:	2
Year Installed:	1974
Tank Capacity:	00001000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	Groundwater Monitoring Well
Tank Num:	003
Container Num:	3
Year Installed:	1974
Tank Capacity:	00001000
Tank Used for:	WASTE
Type of Fuel:	WASTE OIL
Container Construction Thickness:	Not reported
Leak Detection:	Groundwater Monitoring Well

SWEEPS UST:

Status:	Active
Comp Number:	1559
Number:	1
Board Of Equalization:	Not reported
Referral Date:	07-26-90
Action Date:	07-26-90
Created Date:	07-26-90
Owner Tank Id:	Not reported
SWRCB Tank Id:	43-007-001559-155901
Tank Status:	A
Capacity:	2000
Active Date:	07-26-90
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	1

RAINES CHEVROLET (Continued) **1000313712**

EMI:

Year:	1990
County Code:	43
Air Basin:	SF
Facility ID:	3815
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:	1995
County Code:	43
Air Basin:	SF
Facility ID:	3815
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
County Code:	43
Air Basin:	SF
Facility ID:	3815
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
County Code:	43
Air Basin:	SF
Facility ID:	3815
Air District Name:	BA

RAINES CHEVROLET (Continued) **1000313712**

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
County Code:	43
Air Basin:	SF
Facility ID:	15499
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
County Code:	43
Air Basin:	SF
Facility ID:	15499
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:	0.688
Reactive Organic Gases Tons/Yr:	0.665984
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0.001
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2005
County Code:	43
Air Basin:	SF
Facility ID:	15499
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:	.586
Reactive Organic Gases Tons/Yr:	.567248

RAINES CHEVROLET (Continued) **1000313712**

Carbon Monoxide Emissions Tons/Yr:	.001
NOX - Oxides of Nitrogen Tons/Yr:	.004
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0
Year:	2006
County Code:	43
Air Basin:	SF
Facility ID:	15499
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:	.854
Reactive Organic Gases Tons/Yr:	.826672
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:	2007
County Code:	43
Air Basin:	SF
Facility ID:	15499
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:	1.004
Reactive Organic Gases Tons/Yr:	.971872
Carbon Monoxide Emissions Tons/Yr:	.001
NOX - Oxides of Nitrogen Tons/Yr:	.004
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0
Year:	2008
County Code:	43
Air Basin:	SF
Facility ID:	15499
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:	1.011
Reactive Organic Gases Tons/Yr:	.978648
Carbon Monoxide Emissions Tons/Yr:	.001
NOX - Oxides of Nitrogen Tons/Yr:	.004
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

RAINES CHEVROLET (Continued) **1000313712**

Year:	2009
County Code:	43
Air Basin:	SF
Facility ID:	15499
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:	1.0109999999999999
Reactive Organic Gases Tons/Yr:	0.97864799999999996
Carbon Monoxide Emissions Tons/Yr:	0.001
NOX - Oxides of Nitrogen Tons/Yr:	4.0000000000000001E-3
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2010
County Code:	43
Air Basin:	SF
Facility ID:	15499
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:	1.0109999999999999
Reactive Organic Gases Tons/Yr:	0.97864799999999996
Carbon Monoxide Emissions Tons/Yr:	0.001
NOX - Oxides of Nitrogen Tons/Yr:	4.0000000000000001E-3
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

L36 **EXXON RAS #7-3669** **LUST S101594420**
NNW **498 N MATHILDA AVE** **CA FID UST N/A**
1/4-1/2 **SUNNYVALE, CA 94086** **SWEEPS UST**
0.433 mi.
2288 ft. **Site 1 of 4 in cluster L**

Relative:
Lower

Actual:
118 ft.

LUST SANTA CLARA:

Region:	SANTA CLARA
SCVWD ID:	06S2W24Q01F
Date Closed:	01/21/2005
EDR Link ID:	06S2W24Q01F

CA FID UST:

Facility ID:	43000695
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	4082452122
Mail To:	Not reported
Mailing Address:	4550 DACOMA, 3RD FLOOR
Mailing Address 2:	Not reported
Mailing City,St,Zip:	SUNNYVALE 94086

EXXON RAS #7-3669 (Continued) **S101594420**

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: Active
Comp Number: 1246
Number: 1
Board Of Equalization: Not reported
Referral Date: 06-18-91
Action Date: 06-18-91
Created Date: 06-18-91
Owner Tank Id: Not reported
SWRCB Tank Id: 43-007-001246-124605
Tank Status: A
Capacity: 10000
Active Date: 06-18-91
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: 4

Status: Active
Comp Number: 1246
Number: 1
Board Of Equalization: Not reported
Referral Date: 06-18-91
Action Date: 06-18-91
Created Date: 06-18-91
Owner Tank Id: Not reported
SWRCB Tank Id: 43-007-001246-124606
Tank Status: A
Capacity: 10000
Active Date: 06-18-91
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 1246
Number: 1
Board Of Equalization: Not reported
Referral Date: 06-18-91
Action Date: 06-18-91
Created Date: 06-18-91
Owner Tank Id: Not reported
SWRCB Tank Id: 43-007-001246-124607
Tank Status: A
Capacity: 12000
Active Date: 06-18-91
Tank Use: M.V. FUEL
STG: P

EXXON RAS #7-3669 (Continued) **S101594420**

Content:	REG UNLEADED
Number Of Tanks:	Not reported
Status:	Active
Comp Number:	1246
Number:	1
Board Of Equalization:	Not reported
Referral Date:	06-18-91
Action Date:	06-18-91
Created Date:	06-18-91
Owner Tank Id:	Not reported
SWRCB Tank Id:	43-007-001246-124608
Tank Status:	A
Capacity:	1000
Active Date:	06-18-91
Tank Use:	OIL
STG:	W
Content:	WASTE OIL
Number Of Tanks:	Not reported

L37 **EXXON RAS NO 73669** **RCRA-SQG** **1000337864**
NNW **498 N MATHILDA** **HIST CORTESE** **CAD981411333**
1/4-1/2 **SUNNYVALE, CA 94086** **LUST**
0.433 mi. **HIST UST**
2288 ft. **Site 2 of 4 in cluster L**

Relative:
Lower

Actual:
118 ft.

RCRA-SQG:

Date form received by agency:	07/26/2000
Facility name:	EXXON RAS NO 73669
Facility address:	498 N MATHILDA REMEDIATION SYSTEM ONLY SUNNYVALE, CA 94086
EPA ID:	CAD981411333
Mailing address:	1200 TIMBERLOCH PL THE WOODLANDS, TX 773804999
Contact:	ALDA S POOL
Contact address:	1200 TIMBERLOCH PL THE WOODLANDS, TX 773804999
Contact country:	US
Contact telephone:	(281) 296-3579
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:	EXXON MOBIL
Owner/operator address:	3225 GALLOW RD FAIRFAX, VA 22037
Owner/operator country:	Not reported
Owner/operator telephone:	(281) 296-3655
Legal status:	Private
Owner/Operator Type:	Owner

EXXON RAS NO 73669 (Continued) **1000337864**

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: 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

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D018
. Waste name: BENZENE

Historical Generators:
Date form received by agency: 02/24/1992
Site name: EXXON CO USA #73669
Classification: Large Quantity Generator

Violation Status: No violations found

HIST CORTESE:
Region: CORTESE
Facility County Code: 43
Reg By: LTNKA
Reg Id: 43-0537

LUST:
Region: STATE
Global Id: T0608500579
Latitude: 37.3892712446965
Longitude: -122.030146121979
Case Type: LUST Cleanup Site
Status: Completed - Case Closed

EXXON RAS NO 73669 (Continued) **1000337864**

Status Date:	01/21/2005
Lead Agency:	SANTA CLARA COUNTY LOP
Case Worker:	UST
Local Agency:	SANTA CLARA COUNTY LOP
RB Case Number:	Not reported
LOC Case Number:	Not reported
File Location:	Stored electronically as an E-file
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0608500579
Contact Type:	Regional Board Caseworker
Contact Name:	ZSC
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY STREET, SUITE 1400
City:	OAKLAND
Email:	Not reported
Phone Number:	Not reported

Global Id:	T0608500579
Contact Type:	Local Agency Caseworker
Contact Name:	UST CASE WORKER
Organization Name:	SANTA CLARA COUNTY LOP
Address:	1555 Berger Drive, Suite 300
City:	SAN JOSE
Email:	Not reported
Phone Number:	4089183400

Status History:

Global Id:	T0608500579
Status:	Completed - Case Closed
Status Date:	01/21/2005

Global Id:	T0608500579
Status:	Open - Case Begin Date
Status Date:	02/09/1987

Global Id:	T0608500579
Status:	Open - Site Assessment
Status Date:	03/09/1988

Global Id:	T0608500579
Status:	Open - Site Assessment
Status Date:	06/10/1989

Regulatory Activities:

Global Id:	T0608500579
Action Type:	ENFORCEMENT
Date:	01/03/1991
Action:	Notice of Responsibility - #40151

Global Id:	T0608500579
Action Type:	ENFORCEMENT

EXXON RAS NO 73669 (Continued) **1000337864**

Date: 06/30/1999
Action: Staff Letter - #29677

Global Id: T0608500579
Action Type: ENFORCEMENT
Date: 10/23/2001
Action: Staff Letter - #29684

Global Id: T0608500579
Action Type: ENFORCEMENT
Date: 08/17/1999
Action: Staff Letter - #29673

Global Id: T0608500579
Action Type: ENFORCEMENT
Date: 09/12/1999
Action: Staff Letter - #29675

Global Id: T0608500579
Action Type: REMEDIATION
Date: 08/30/1988
Action: Excavation

Global Id: T0608500579
Action Type: RESPONSE
Date: 07/07/1999
Action: Remedial Progress Report

Global Id: T0608500579
Action Type: RESPONSE
Date: 10/29/2001
Action: Monitoring Report - Quarterly

Global Id: T0608500579
Action Type: RESPONSE
Date: 08/18/1999
Action: Soil and Water Investigation Workplan

Global Id: T0608500579
Action Type: Other
Date: 02/09/1987
Action: Leak Reported

Global Id: T0608500579
Action Type: RESPONSE
Date: 10/31/1999
Action: Monitoring Report - Quarterly

HIST UST:
Region: STATE
Facility ID: 00000023994
Facility Type: Gas Station
Other Type: Not reported
Contact Name: JIM GRIFFIN
Telephone: 4082452122
Owner Name: EXXON COMPANY U.S.A.

EXXON RAS NO 73669 (Continued) **1000337864**

Owner Address:	16945 NORTHCHASE BLVD
Owner City,St,Zip:	HOUSTON, TX 77210
Total Tanks:	0004
Tank Num:	001
Container Num:	1
Year Installed:	1968
Tank Capacity:	00008000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor
Tank Num:	002
Container Num:	2
Year Installed:	1968
Tank Capacity:	00008000
Tank Used for:	PRODUCT
Type of Fuel:	REGULAR
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor
Tank Num:	003
Container Num:	3
Year Installed:	1968
Tank Capacity:	00008000
Tank Used for:	PRODUCT
Type of Fuel:	PREMIUM
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor
Tank Num:	004
Container Num:	4
Year Installed:	1968
Tank Capacity:	00000550
Tank Used for:	PRODUCT
Type of Fuel:	WASTE OIL
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor

L38 **UNOCAL #4315** **LUST S103880881**
NNW **499 N MATHILDA AVE** **HIST LUST N/A**
1/4-1/2 **SUNNYVALE, CA 94086**
0.442 mi.
2333 ft. **Site 3 of 4 in cluster L**

Relative:
Lower

Actual:
118 ft.

LUST REG 2:

Region:	2
Facility Id:	Not reported
Facility Status:	Pollution Characterization
Case Number:	06S2W24Q02f
How Discovered:	Not reported
Leak Cause:	Not reported
Leak Source:	Not reported
Date Leak Confirmed:	Not reported
Oversight Program:	LUST
Prelim. Site Assesment Wokplan Submitted:	Not reported
Preliminary Site Assesment Began:	8/10/1989

UNOCAL #4315 (Continued) **S103880881**

Pollution Characterization Began: 10/27/1989
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

HIST LUST SANTA CLARA:
Region: SANTA CLARA
Region Code: 2
SCVWD ID: 06S2W24Q02
Oversite Agency: SCCDEH
Date Listed: 1990-01-01 00:00:00
Closed Date: Not reported

L39 **UNION OIL SS# 4315** **HIST CORTESE 1000167265**
NNW **499 N MATHILDA AVE** **HIST UST N/A**
1/4-1/2 **SUNNYVALE, CA 94086**
0.442 mi.
2333 ft. **Site 4 of 4 in cluster L**

Relative:
Lower

Actual:
118 ft.

HIST CORTESE:
Region: CORTESE
Facility County Code: 43
Reg By: LTNKA
Reg Id: 43-1569

HIST UST:
Region: STATE
Facility ID: 00000060846
Facility Type: Gas Station
Other Type: Not reported
Contact Name: FRED A. JONES
Telephone: 4087357180
Owner Name: UNION OIL CO.
Owner Address: 1 CALIFORNIA ST., SUITE 2700
Owner City,St,Zip: SAN FRANCISCO, CA 94111
Total Tanks: 0001

Tank Num: 001
Container Num: 4315-10-1
Year Installed: 1967
Tank Capacity: 00000000
Tank Used for: WASTE
Type of Fuel: Not reported
Container Construction Thickness: 6
Leak Detection: Visual

K40 **EXXON R/S 70285** **LUST** **S101594486**
NW **696 W EL CAMINO REAL** **CA FID UST** **N/A**
1/4-1/2 **SUNNYVALE, CA 94087** **SWEEPS UST**
0.447 mi.
2360 ft. **Site 2 of 3 in cluster K**

Relative:
Higher

Actual:
129 ft.

LUST:

Region:	STATE
Global Id:	T0608502405
Latitude:	37.3696873333333
Longitude:	-122.040750333333
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	06/17/2009
Lead Agency:	SANTA CLARA COUNTY LOP
Case Worker:	LL
Local Agency:	SANTA CLARA COUNTY LOP
RB Case Number:	14-514
LOC Case Number:	06S2W36E04f
File Location:	Stored electronically as an E-file
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0608502405
Contact Type:	Regional Board Caseworker
Contact Name:	NATHAN KING
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY ST., SUITE 1400
City:	OAKLAND
Email:	nking@waterboards.ca.gov
Phone Number:	Not reported

Global Id:	T0608502405
Contact Type:	Local Agency Caseworker
Contact Name:	LANI LEE
Organization Name:	SANTA CLARA COUNTY LOP
Address:	1555 BERGER DR, SUITE 300
City:	SAN JOSE
Email:	lani.lee@deh.sccgov.org
Phone Number:	Not reported

Status History:

Global Id:	T0608502405
Status:	Open - Site Assessment
Status Date:	02/13/2006

Global Id:	T0608502405
Status:	Completed - Case Closed
Status Date:	06/17/2009

Global Id:	T0608502405
Status:	Open - Verification Monitoring
Status Date:	08/01/2008

Global Id:	T0608502405

EXXON R/S 70285 (Continued) **S101594486**

Status: Open - Case Begin Date
Status Date: 06/22/1998

Global Id: T0608502405
Status: Open - Remediation
Status Date: 12/07/2007

Global Id: T0608502405
Status: Open - Site Assessment
Status Date: 06/22/1998

Regulatory Activities:
Global Id: T0608502405
Action Type: REMEDIATION
Date: 02/01/2007
Action: Excavation

Global Id: T0608502405
Action Type: REMEDIATION
Date: 05/06/2008
Action: Monitored Natural Attenuation

Global Id: T0608502405
Action Type: Other
Date: 12/22/1998
Action: Leak Discovery

Global Id: T0608502405
Action Type: ENFORCEMENT
Date: 08/26/1999
Action: Notice of Responsibility - #999280

Global Id: T0608502405
Action Type: ENFORCEMENT
Date: 02/17/2006
Action: Staff Letter - #60712

Global Id: T0608502405
Action Type: ENFORCEMENT
Date: 07/17/2007
Action: Staff Letter - #707170

Global Id: T0608502405
Action Type: Other
Date: 01/18/2007
Action: Leak Stopped

Global Id: T0608502405
Action Type: ENFORCEMENT
Date: 08/30/1999
Action: Staff Letter - #29280

Global Id: T0608502405
Action Type: ENFORCEMENT
Date: 05/17/2000
Action: Staff Letter - #29298

EXXON R/S 70285 (Continued) **S101594486**

Global Id: T0608502405
Action Type: ENFORCEMENT
Date: 05/31/2000
Action: Staff Letter - #29296

Global Id: T0608502405
Action Type: ENFORCEMENT
Date: 10/20/2000
Action: Staff Letter - #29288

Global Id: T0608502405
Action Type: ENFORCEMENT
Date: 12/22/2000
Action: Staff Letter - #29290

Global Id: T0608502405
Action Type: ENFORCEMENT
Date: 01/17/2001
Action: Staff Letter - #29294

Global Id: T0608502405
Action Type: ENFORCEMENT
Date: 05/03/2005
Action: Staff Letter - #503050

Global Id: T0608502405
Action Type: RESPONSE
Date: 07/31/2000
Action: Monitoring Report - Quarterly

Global Id: T0608502405
Action Type: ENFORCEMENT
Date: 12/07/2007
Action: Staff Letter - #707021

Global Id: T0608502405
Action Type: ENFORCEMENT
Date: 02/07/2000
Action: Staff Letter - #29283

Global Id: T0608502405
Action Type: ENFORCEMENT
Date: 06/14/2000
Action: Staff Letter - #29285

Global Id: T0608502405
Action Type: ENFORCEMENT
Date: 01/05/2001
Action: Staff Letter - #29292

Global Id: T0608502405
Action Type: ENFORCEMENT
Date: 01/06/2006
Action: Staff Letter - #661

Global Id: T0608502405
Action Type: ENFORCEMENT

EXXON R/S 70285 (Continued) **S101594486**

Date: 08/29/2008
Action: Staff Letter - #809280

Global Id: T0608502405
Action Type: Other
Date: 05/06/1999
Action: Leak Reported

Global Id: T0608502405
Action Type: RESPONSE
Date: 04/02/2001
Action: Soil and Water Investigation Report

Global Id: T0608502405
Action Type: RESPONSE
Date: 03/19/2001
Action: Soil and Water Investigation Report

Global Id: T0608502405
Action Type: RESPONSE
Date: 03/19/2001
Action: Monitoring Report - Quarterly

Global Id: T0608502405
Action Type: ENFORCEMENT
Date: 09/03/2008
Action: Staff Letter - #803090

Global Id: T0608502405
Action Type: RESPONSE
Date: 11/14/2005
Action: Soil and Water Investigation Report

Global Id: T0608502405
Action Type: RESPONSE
Date: 02/21/2006
Action: Soil and Water Investigation Workplan

Global Id: T0608502405
Action Type: RESPONSE
Date: 07/07/2006
Action: Soil and Water Investigation Report

Global Id: T0608502405
Action Type: RESPONSE
Date: 04/30/2000
Action: Monitoring Report - Quarterly

Global Id: T0608502405
Action Type: RESPONSE
Date: 04/30/2008
Action: Corrective Action Plan / Remedial Action Plan

Global Id: T0608502405
Action Type: RESPONSE
Date: 11/30/2007
Action: Corrective Action Plan / Remedial Action Plan

EXXON R/S 70285 (Continued) **S101594486**

Global Id: T0608502405
Action Type: RESPONSE
Date: 02/20/2001
Action: Other Report / Document

Global Id: T0608502405
Action Type: RESPONSE
Date: 02/19/2001
Action: Soil and Water Investigation Workplan

Global Id: T0608502405
Action Type: RESPONSE
Date: 10/31/1999
Action: Remedial Progress Report

Global Id: T0608502405
Action Type: ENFORCEMENT
Date: 06/17/2009
Action: Closure/No Further Action Letter

Global Id: T0608502405
Action Type: RESPONSE
Date: 12/04/2000
Action: Soil and Water Investigation Workplan

LUST SANTA CLARA:
Region: SANTA CLARA
SCVWD ID: 06S2W36E04F
Date Closed: 06/17/2009
EDR Link ID: 06S2W36E04F

CA FID UST:
Facility ID: 43001679
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 4087469424
Mail To: Not reported
Mailing Address: 4550 DACOMA
Mailing Address 2: Not reported
Mailing City,St,Zip: SUNNYVALE 94087
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: Active
Comp Number: 1482
Number: 1
Board Of Equalization: Not reported

EXXON R/S 70285 (Continued) **S101594486**

Referral Date:	10-24-90
Action Date:	10-24-90
Created Date:	07-30-90
Owner Tank Id:	1
SWRCB Tank Id:	43-007-001482-148206
Tank Status:	A
Capacity:	10000
Active Date:	07-30-90
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	5

Status:	Active
Comp Number:	1482
Number:	1
Board Of Equalization:	Not reported
Referral Date:	10-24-90
Action Date:	10-24-90
Created Date:	07-30-90
Owner Tank Id:	2
SWRCB Tank Id:	43-007-001482-148207
Tank Status:	A
Capacity:	10000
Active Date:	07-30-90
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Active
Comp Number:	1482
Number:	1
Board Of Equalization:	Not reported
Referral Date:	10-24-90
Action Date:	10-24-90
Created Date:	07-30-90
Owner Tank Id:	3
SWRCB Tank Id:	43-007-001482-148208
Tank Status:	A
Capacity:	10000
Active Date:	12-05-90
Tank Use:	M.V. FUEL
STG:	P
Content:	LEADED
Number Of Tanks:	Not reported

Status:	Active
Comp Number:	1482
Number:	1
Board Of Equalization:	Not reported
Referral Date:	10-24-90
Action Date:	10-24-90
Created Date:	07-30-90
Owner Tank Id:	4
SWRCB Tank Id:	43-007-001482-148209
Tank Status:	A

EXXON R/S 70285 (Continued) **S101594486**

Capacity: 10000
Active Date: 12-05-90
Tank Use: M.V. FUEL
STG: P
Content: DIESEL
Number Of Tanks: Not reported

Status: Active
Comp Number: 1482
Number: 1
Board Of Equalization: Not reported
Referral Date: 10-24-90
Action Date: 10-24-90
Created Date: 07-30-90
Owner Tank Id: Not reported
SWRCB Tank Id: 43-007-001482-148210
Tank Status: A
Capacity: 10000
Active Date: 12-09-93
Tank Use: M.V. FUEL
STG: P
Content: METHANOL
Number Of Tanks: Not reported

K41 **EXXON #7-0285** **LUST S104541867**
NW **696 W EL CAMINO REAL** **HIST LUST N/A**
1/4-1/2 **SUNNYVALE, CA 94085**
0.447 mi.
2360 ft. **Site 3 of 3 in cluster K**

Relative:
Higher

Actual:
129 ft.

LUST REG 2:
Region: 2
Facility Id: Not reported
Facility Status: Pollution Characterization
Case Number: 06S2W36E04f
How Discovered: Not reported
Leak Cause: Not reported
Leak Source: Not reported
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 6/22/1998
Pollution Characterization Began: 6/22/1998
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

HIST LUST SANTA CLARA:
Region: SANTA CLARA
Region Code: 2
SCVWD ID: 06S2W36E04
Oversite Agency: SCCDEH
Date Listed: 1999-08-20 00:00:00
Closed Date: Not reported

M42
NW
1/4-1/2
0.485 mi.
2563 ft.

CIVIC CENTER
456 W OLIVE AVE
SUNNYVALE, CA 94086

Database(s): LUST, HIST UST
EDR ID Number: U001594885
EPA ID Number: N/A

Site 1 of 3 in cluster M

Relative:
Lower

Actual:
121 ft.

LUST:

Region:	STATE
Global Id:	T0608598524
Latitude:	37.371142
Longitude:	-122.037719
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	12/21/1990
Lead Agency:	SANTA CLARA COUNTY LOP
Case Worker:	UST
Local Agency:	SANTA CLARA COUNTY LOP
RB Case Number:	Not reported
LOC Case Number:	Not reported
File Location:	Stored electronically as an E-file
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0608598524
Contact Type:	Regional Board Caseworker
Contact Name:	ZSC
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY STREET, SUITE 1400
City:	OAKLAND
Email:	Not reported
Phone Number:	Not reported

Global Id:	T0608598524
Contact Type:	Local Agency Caseworker
Contact Name:	UST CASE WORKER
Organization Name:	SANTA CLARA COUNTY LOP
Address:	1555 Berger Drive, Suite 300
City:	SAN JOSE
Email:	Not reported
Phone Number:	4089183400

Status History:

Global Id:	T0608598524
Status:	Open - Case Begin Date
Status Date:	04/13/1988

Global Id:	T0608598524
Status:	Completed - Case Closed
Status Date:	12/21/1990

Global Id:	T0608598524
Status:	Open - Site Assessment
Status Date:	10/01/1990

CIVIC CENTER (Continued) **U001594885**

Regulatory Activities:

Global Id:	T0608598524
Action Type:	REMEDIATION
Date:	04/13/1988
Action:	Excavation
Global Id:	T0608598524
Action Type:	ENFORCEMENT
Date:	11/27/1990
Action:	Notice of Responsibility - #40087
Global Id:	T0608598524
Action Type:	RESPONSE
Date:	04/26/2001
Action:	Other Report / Document
Global Id:	T0608598524
Action Type:	ENFORCEMENT
Date:	12/21/1990
Action:	Closure/No Further Action Letter
Global Id:	T0608598524
Action Type:	Other
Date:	04/13/1988
Action:	Leak Reported

HIST UST:

Region:	STATE
Facility ID:	00000023380
Facility Type:	Other
Other Type:	MUNICIPALITY
Contact Name:	JIM MASCH
Telephone:	4087385642
Owner Name:	CITY OF SUNNYVALE
Owner Address:	456 W. OLIVE AVE.
Owner City,St,Zip:	SUNNYVALE, CA 94086
Total Tanks:	0004
Tank Num:	001
Container Num:	0110-1
Year Installed:	1967
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	Vapor Sniff Well
Tank Num:	002
Container Num:	0112-2
Year Installed:	1972
Tank Capacity:	00012000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	Vapor Sniff Well

CIVIC CENTER (Continued) **U001594885**

Tank Num:	003
Container Num:	0100-3
Year Installed:	1970
Tank Capacity:	00000500
Tank Used for:	PRODUCT
Type of Fuel:	REGULAR
Container Construction Thickness:	Not reported
Leak Detection:	Vapor Sniff Well

Tank Num:	004
Container Num:	0100-4
Year Installed:	Not reported
Tank Capacity:	00000300
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Container Construction Thickness:	Not reported
Leak Detection:	Vapor Sniff Well

M43 **SUNNYVALE CITY HALL FUEL DOCK** **HIST CORTESE** **S101594600**
NW **456 OLIVE AVE W** **LUST** **N/A**
1/4-1/2 **SUNNYVALE, CA 94086** **CA FID UST**
0.485 mi. **HIST LUST**
2563 ft. **Site 2 of 3 in cluster M**

Relative:
Lower

Actual:
121 ft.

HIST CORTESE:

Region:	CORTESE
Facility County Code:	43
Reg By:	LTNKA
Reg Id:	43-1413

LUST:

Region:	STATE
Global Id:	T0608501386
Latitude:	37.371518
Longitude:	-122.036012
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	12/21/1990
Lead Agency:	SAN FRANCISCO BAY RWQCB (REGION 2)
Case Worker:	MEJ
Local Agency:	SANTA CLARA COUNTY LOP
RB Case Number:	43-1413
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0608501386
Contact Type:	Regional Board Caseworker
Contact Name:	MARK JOHNSON
Organization Name:	SAN FRANCISCO BAY RWQCB (REGION 2)
Address:	1515 CLAY STREET, SUITE 1400
City:	OAKLAND
Email:	mjohnson@waterboards.ca.gov

SUNNYVALE CITY HALL FUEL DOCK (Continued) **S101594600**

Phone Number: Not reported

Global Id: T0608501386
Contact Type: Local Agency Caseworker
Contact Name: UST CASE WORKER
Organization Name: SANTA CLARA COUNTY LOP
Address: 1555 Berger Drive, Suite 300
City: SAN JOSE
Email: Not reported
Phone Number: 4089183400

Status History:
Global Id: T0608501386
Status: Open - Case Begin Date
Status Date: 04/13/1988

Global Id: T0608501386
Status: Completed - Case Closed
Status Date: 12/21/1990

Global Id: T0608501386
Status: Open - Site Assessment
Status Date: 04/20/1988

Regulatory Activities:
Global Id: T0608501386
Action Type: Other
Date: 04/20/1988
Action: Leak Discovery

Global Id: T0608501386
Action Type: Other
Date: 04/20/1988
Action: Leak Stopped

Global Id: T0608501386
Action Type: Other
Date: 04/13/1988
Action: Leak Reported

LUST REG 2:
Region: 2
Facility Id: 43-1413
Facility Status: Case Closed
Case Number: 06S2E36D01
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: 4/20/1988
Pollution Characterization Began: Not reported
Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported

SUNNYVALE CITY HALL FUEL DOCK (Continued) **S101594600**

Date Post Remedial Action Monitoring Began: Not reported

Region: 2
Facility Id: Not reported
Facility Status: Case Closed
Case Number: 06S2W36D01f
How Discovered: Not reported
Leak Cause: Not reported
Leak Source: Not reported
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 10/1/1990
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

CA FID UST:
Facility ID: 43011850
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 4087307500
Mail To: Not reported
Mailing Address: 456 W OLIVE AVE
Mailing Address 2: Not reported
Mailing City,St,Zip: SUNNYVALE 94086
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

HIST LUST SANTA CLARA:
Region: SANTA CLARA
Region Code: 2
SCVWD ID: 06S2W36D01
Oversite Agency: SCVWD
Date Listed: 1989-01-01 00:00:00
Closed Date: 1990-12-21 00:00:00

M44 **SUNNYVALE CITY HALL** **LUST U003782345**
NW **456 W OLIVE AVE** **UST N/A**
1/4-1/2 **SUNNYVALE, CA 94086** **SWEEPS UST**
0.485 mi.
2563 ft. **Site 3 of 3 in cluster M**

Relative:
Lower

Actual:
121 ft.

LUST SANTA CLARA:
Region: SANTA CLARA
SCVWD ID: 06S2W36D01F
Date Closed: 12/21/1990
EDR Link ID: 06S2W36D01F

SUNNYVALE CITY HALL (Continued) **U003782345**

UST:
Facility ID: 43-007-433157
Permitting Agency: SUNNYVALE, CITY OF
Latitude: 37.372393
Longitude: -122.0361134

SWEEPS UST:
Status: Active
Comp Number: 3157
Number: 4
Board Of Equalization: Not reported
Referral Date: 07-26-90
Action Date: 07-26-90
Created Date: 07-26-90
Owner Tank Id: Not reported
SWRCB Tank Id: 43-007-003157-315704
Tank Status: A
Capacity: 12000
Active Date: 12-06-90
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: 3

Status: Active
Comp Number: 3157
Number: 4
Board Of Equalization: Not reported
Referral Date: 07-26-90
Action Date: 07-26-90
Created Date: 07-26-90
Owner Tank Id: Not reported
SWRCB Tank Id: 43-007-003157-315705
Tank Status: A
Capacity: 12000
Active Date: 12-06-90
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 3157
Number: 4
Board Of Equalization: Not reported
Referral Date: 07-26-90
Action Date: 07-26-90
Created Date: 07-26-90
Owner Tank Id: Not reported
SWRCB Tank Id: 43-007-003157-315706
Tank Status: A
Capacity: 6000
Active Date: 12-06-90
Tank Use: M.V. FUEL
STG: P
Content: DIESEL

SUNNYVALE CITY HALL (Continued) **U003782345**

Number Of Tanks: Not reported

45
North
1/4-1/2
0.492 mi.
2600 ft.

SUNNYVALE
211 W IOWA AVE
SUNNYVALE, CA 94086

HIST UST **U001594913**
ENVIROSTOR **N/A**

Relative:
Lower

Actual:
110 ft.

HIST UST:

Region:	STATE
Facility ID:	00000021221
Facility Type:	Other
Other Type:	RETAIL DEPT. STORE
Contact Name:	KEVIN HYNES
Telephone:	4087377700
Owner Name:	MONTGOMERY WARD
Owner Address:	ONE MONTGOMERY WARD PLAZA
Owner City,St,Zip:	CHICAGO, IL 94086
Total Tanks:	0001
Tank Num:	001
Container Num:	2526
Year Installed:	1979
Tank Capacity:	00000000
Tank Used for:	WASTE
Type of Fuel:	WASTE OIL
Container Construction Thickness:	Not reported
Leak Detection:	Visual

ENVIROSTOR:

Facility ID:	80001039
Status:	No Further Action
Status Date:	03/18/2013
Site Code:	Not reported
Site Type:	Military Evaluation
Site Type Detailed:	FUDS
Acres:	38
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Not reported
Supervisor:	Charles Ridenour
Division Branch:	Cleanup Sacramento
Assembly:	24
Senate:	13
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	DERA
Latitude:	37.37694
Longitude:	-122.0405
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	Explosives (UXO, MEC
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	CA99799F863700

SUNNYVALE (Continued) **U001594913**

Alias Type:	Federal Facility ID
Alias Name:	J09CA7055
Alias Type:	INPR
Alias Name:	80001039
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	No Department of Defense Action Indicated (NDAI)
Completed Date:	08/03/2012
Comments:	This determination is based on information in DTSCs and the Water Boards possession at this time concerning Department of Defense (DoD) activities on the sites listed above. DTSC and the Water Boards reserve the right to address any appropriate environmental or human health related issue, should additional information concerning the environmental condition of these sites become available in the future. Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
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

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46 NNW 1/2-1 0.868 mi. 4584 ft. **SUNNYVALE ORDNANCE DEPOT** **FUDS** **1007211966 N/A**

SUNNYVALE, CA

Relative: Lower

Actual: 110 ft.

FUDS:

Federal Facility ID:	CA9799F8637
FUDS #:	J09CA7055
INST ID:	53773
Facility Name:	SUNNYVALE ORDNANCE DEPOT
City:	SUNNYVALE
State:	CA
EPA Region:	09
County:	SANTA CLARA
Congressional District:	14
US Army District:	Sacramento District (SPK)
Fiscal Year:	2012
Telephone:	916-557-7461
NPL Status:	Not Listed
RAB:	Not reported
CTC:	8
Current Owner:	Local Government
Current Prog:	Not reported
Future Prog:	Not reported
Acreage:	Not reported
Description:	The site is located in Washington Park in Sunnyvale, Santa Clara County, California. The City of Sunnyvale currently owns the land and has converted it into a city park known as Washington Park, a senior

SUNNYVALE ORDNANCE DEPOT (Continued) **1007211966**

citizens center, a school, and a residential area. Military munitions were produced or demilitarized at this location and therefore may present an explosive hazard.

History: The site was used as a bivouac area for the army. from February to October 1943. The U.S. constructed buildings required for housing troops to include barracks, latrines, shower facilities, and a mess hall. The army personnel participated in routine military training to include physical training, drill, and classroom work and housed staff and command vehicles of the II Armored Corps. After WWII, the site reverted back to city of Sunnyvale.

Latitude: 37.37694444000
Longitude: -122.04055556

---

47 NE 1/2-1 0.919 mi. 4852 ft. **JOSHUA HENDY IRON WORKS (J09CA7383)** **ENVIROSTOR** **S107736518 N/A**

SUNNYVALE, CA

Relative: Lower

Actual: 85 ft.

ENVIROSTOR:

Facility ID:	80001020
Status:	No Further Action
Status Date:	02/27/2014
Site Code:	201693
Site Type:	Military Evaluation
Site Type Detailed:	FUDS
Acres:	13
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Not reported
Supervisor:	Dan Ward
Division Branch:	Cleanup Sacramento
Assembly:	24
Senate:	13
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	DERA
Latitude:	37.375
Longitude:	-122.0208
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	CA99799FA41000
Alias Type:	Federal Facility ID
Alias Name:	J09CA7383
Alias Type:	INPR
Alias Name:	201693
Alias Type:	Project Code (Site Code)
Alias Name:	80001020
Alias Type:	Envirostor ID Number
Alias Name:	http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=3350001
Alias Type:	External Website Link / URL
Alias Name:	http://yosemite.epa.gov/r9/sfund/r9sfdocw.nsf/vwsoalphabetic/Westinghouse+Electric+Corp.+(Sunnyvale+Plant)?OpenDocument

JOSHUA HENDY IRON WORKS (J09CA7383) (Continued) **S107736518**

Alias Type: External Website Link / URL

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Inventory Project Report (INPR)
Completed Date: 09/24/1999
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: No Department of Defense Action Indicated (NDAI)
Completed Date: 02/27/2014
Comments: Please note that this determination is based on information in DTSCs and the Water Boards possession at this time concerning Department of Defense (DoD) activities on the sites listed above. DTSC and the Water Boards reserve the right to address any appropriate environmental or human health related issue, should additional information concerning the environmental condition of this site becomes available in the future.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
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

N48 **NORTHROP GRUMMAN MARINE SYSTEMS** **NPDES U001594993**
NNE **401 E HENDY AVE** **HIST UST N/A**
1/2-1 **SUNNYVALE, CA 94086** **ENVIROSTOR**
0.950 mi.
5016 ft. **Site 1 of 2 in cluster N**

Relative:
Lower

Actual:
87 ft.

NPDES:
Npdes Number: CAS000001
Facility Status: Active
Agency Id: 0
Region: 2
Regulatory Measure Id: 184273
Order No: 97-03-DWQ
Regulatory Measure Type: Enrollee
Place Id: Not reported
WDID: 2 43I016848
Program Type: Industrial
Adoption Date Of Regulatory Measure: Not reported
Effective Date Of Regulatory Measure: 10/05/2001
Expiration Date Of Regulatory Measure: Not reported
Termination Date Of Regulatory Measure: Not reported
Discharge Name: Northrop Grumman Corp
Discharge Address: 2980 Fairview Park Drive
Discharge City: Falls Church
Discharge State: Virginia
Discharge Zip: 22042
RECEIVED DATE: Not reported

NORTHROP GRUMMAN MARINE SYSTEMS (Continued) **U001594993**

PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported
Npdes Number:	Not reported

NORTHROP GRUMMAN MARINE SYSTEMS (Continued) **U001594993**

Facility Status:	Not reported
Agency Id:	Not reported
Region:	2
Regulatory Measure Id:	184273
Order No:	Not reported
Regulatory Measure Type:	Industrial
Place Id:	Not reported
WDID:	2 43I016848
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	05/09/2008
PROCESSED DATE:	10/05/2001
STATUS CODE NAME:	Active
STATUS DATE:	10/05/2001
PLACE SIZE:	73
PLACE SIZE UNIT:	Acres
FACILITY CONTACT NAME:	Hanif Subedar
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	408-735-2952
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	hanif.subedar@ngc.com
OPERATOR NAME:	Northrop Grumman Corp
OPERATOR ADDRESS:	2980 Fairview Park Drive
OPERATOR CITY:	Falls Church
OPERATOR STATE:	Virginia
OPERATOR ZIP:	22042
OPERATOR CONTACT NAME:	Russ K Parman
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	408-735-2633
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	russ.parman@ngc.com
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	California
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported

NORTHROP GRUMMAN MARINE SYSTEMS (Continued) **U001594993**

CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	City Of Sunnyvale E Chnnel
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	3621-Motors and Generators
SECONDARY SIC:	3566-Speed Changers, Industrial High-Speed Drives, and Gears
TERTIARY SIC:	3511-Steam, Gas, and Hydraulic Turbines, and Turbine Generator Set Units

HIST UST:

Region:	STATE
Facility ID:	00000019324
Facility Type:	Other
Other Type:	MANUFACTURING
Contact Name:	Not reported
Telephone:	4087352322
Owner Name:	WESTINGHOUSE ELECTRIC CORPORAT
Owner Address:	WESTINGHOUSE BUILDING;GATEWAY
Owner City,St,Zip:	PITTSBURGH, PA 15222
Total Tanks:	0024
Tank Num:	001
Container Num:	91-1
Year Installed:	Not reported
Tank Capacity:	00020000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	None
Tank Num:	002
Container Num:	11-1
Year Installed:	Not reported
Tank Capacity:	00002600
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Container Construction Thickness:	0.5
Leak Detection:	Visual
Tank Num:	003
Container Num:	11-2
Year Installed:	Not reported
Tank Capacity:	00000400
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Container Construction Thickness:	0.5
Leak Detection:	Visual

NORTHROP GRUMMAN MARINE SYSTEMS (Continued) **U001594993**

Tank Num:	004
Container Num:	12-1
Year Installed:	Not reported
Tank Capacity:	00000500
Tank Used for:	PRODUCT
Type of Fuel:	REGULAR
Container Construction Thickness:	Not reported
Leak Detection:	None

Tank Num:	005
Container Num:	31-1
Year Installed:	Not reported
Tank Capacity:	00001500
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	Not reported
Leak Detection:	None

Tank Num:	006
Container Num:	31-2
Year Installed:	Not reported
Tank Capacity:	00001500
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	Not reported
Leak Detection:	None

Tank Num:	007
Container Num:	41-1
Year Installed:	Not reported
Tank Capacity:	00005000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	Not reported
Leak Detection:	None

Tank Num:	008
Container Num:	41-2
Year Installed:	Not reported
Tank Capacity:	00005000
Tank Used for:	Not reported
Type of Fuel:	Not reported
Container Construction Thickness:	Not reported
Leak Detection:	None

Tank Num:	009
Container Num:	41-3
Year Installed:	Not reported
Tank Capacity:	00000500
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Container Construction Thickness:	Not reported
Leak Detection:	None

Tank Num:	010
Container Num:	41-4
Year Installed:	Not reported

NORTHROP GRUMMAN MARINE SYSTEMS (Continued) **U001594993**

Tank Capacity:	00001500
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Container Construction Thickness:	Not reported
Leak Detection:	None

Tank Num:	011
Container Num:	41-5
Year Installed:	Not reported
Tank Capacity:	00000200
Tank Used for:	WASTE
Type of Fuel:	WASTE OIL
Container Construction Thickness:	6.0
Leak Detection:	None

Tank Num:	012
Container Num:	41-6
Year Installed:	Not reported
Tank Capacity:	00005000
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Container Construction Thickness:	Not reported
Leak Detection:	None

Tank Num:	013
Container Num:	41-7
Year Installed:	Not reported
Tank Capacity:	00001800
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Container Construction Thickness:	4
Leak Detection:	None

Tank Num:	014
Container Num:	41-8
Year Installed:	Not reported
Tank Capacity:	00000950
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Container Construction Thickness:	1/2
Leak Detection:	None

Tank Num:	015
Container Num:	41-9
Year Installed:	Not reported
Tank Capacity:	00007000
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Container Construction Thickness:	Not reported
Leak Detection:	None

Tank Num:	016
Container Num:	44-1
Year Installed:	Not reported
Tank Capacity:	00000130
Tank Used for:	WASTE
Type of Fuel:	WASTE OIL

NORTHROP GRUMMAN MARINE SYSTEMS (Continued) **U001594993**

Container Construction Thickness: 6.0
Leak Detection: None

Tank Num: 017
Container Num: 44-2
Year Installed: Not reported
Tank Capacity: 00001000
Tank Used for: WASTE
Type of Fuel: WASTE OIL
Container Construction Thickness: Not reported
Leak Detection: None

Tank Num: 018
Container Num: 47-1
Year Installed: Not reported
Tank Capacity: 00000500
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Container Construction Thickness: Not reported
Leak Detection: None

Tank Num: 019
Container Num: 51-1
Year Installed: Not reported
Tank Capacity: 00009500
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Container Construction Thickness: Not reported
Leak Detection: None

Tank Num: 020
Container Num: 61-1
Year Installed: Not reported
Tank Capacity: 00001000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Container Construction Thickness: Not reported
Leak Detection: None

Tank Num: 021
Container Num: 61-2
Year Installed: Not reported
Tank Capacity: 00010550
Tank Used for: WASTE
Type of Fuel: WASTE OIL
Container Construction Thickness: Not reported
Leak Detection: None

Tank Num: 022
Container Num: 65-1
Year Installed: Not reported
Tank Capacity: 00000500
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: Not reported
Leak Detection: None

NORTHROP GRUMMAN MARINE SYSTEMS (Continued) **U001594993**

Tank Num:	023
Container Num:	81-1
Year Installed:	Not reported
Tank Capacity:	00002500
Tank Used for:	WASTE
Type of Fuel:	Not reported
Container Construction Thickness:	6
Leak Detection:	None

Tank Num:	024
Container Num:	81-2
Year Installed:	Not reported
Tank Capacity:	00001900
Tank Used for:	WASTE
Type of Fuel:	Not reported
Container Construction Thickness:	Not reported
Leak Detection:	None

ENVIROSTOR:

Facility ID:	71002136
Status:	Inactive - Needs Evaluation
Status Date:	Not reported
Site Code:	Not reported
Site Type:	Tiered Permit
Site Type Detailed:	Tiered Permit
Acres:	Not reported
NPL:	NO
Regulatory Agencies:	NONE SPECIFIED
Lead Agency:	NONE SPECIFIED
Program Manager:	Not reported
Supervisor:	Not reported
Division Branch:	Cleanup Berkeley
Assembly:	24
Senate:	13
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Not reported
Latitude:	37.37833
Longitude:	-122.0270
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	CAD001864081
Alias Type:	EPA Identification Number
Alias Name:	71002136
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	Not reported
Completed Sub Area Name:	Not reported
Completed Document Type:	Not reported
Completed Date:	Not reported
Comments:	Not reported

NORTHROP GRUMMAN MARINE SYSTEMS (Continued) **U001594993**

Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
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

N49 **WESTINGHOUSE ELECTRIC CORPORATION** **CA BOND EXP. PLAN** **S100833422**
NNE **401 EAST HENDY** **N/A**
1/2-1 **SUNNYVALE, CA 94088**
0.950 mi.
5016 ft. **Site 2 of 2 in cluster N**

Relative:
Lower

Actual:
87 ft.

CA BOND EXP. PLAN:

Reponsible Party:	NPL SITE CLEANUP WORKPLAN
Project Revenue Source Company:	Not reported
Project Revenue Source Addr:	Not reported
Project Revenue Source City,St,Zip:	Not reported
Project Revenue Source Desc:	Westinghouse, the responsible party, has been conducting remedial activities under the direction of the RWQCB and EPA. DHS has budgeted $50,000 for development, review and approval of a RAP and for oversight/monitoring of cleanup efforts, and will seek to recover all actual costs from the responsible party. The RP will pay all costs associated with RI/FS and cleanup activities.
Site Description:	The Westinghouse Electric Corporation site consists of office buildings, manufacturing facilities, a parking area and some open areas. It encompasses approximately 75 acres of land. From 1947 to 1964, Westinghouse operated a production and repair plant for electrical apparatus which contained polychlorinated biphenyl (PCB) fluids.
Hazardous Waste Desc:	Soil and ground water are contaminated with polychlorinated biphenyls (PCBs) as a result of the manufacturing of electrical equipment. High levels of PCBs have been found in soils near a PCB-storage tank, and at shallower depths throughout open areas. The contamination extends to boundary fence lines and to backyards of the residences and other properties along the west boundary. Ground water is also contaminated near the PCB-storage tank.
Threat To Public Health & Env:	The contaminated soil and ground water represent a potential health threat to workers at the site and to residents of adjacent properties if they are exposed to this material.
Site Activity Status:	In November, 1984, PCB-contaminated soil was removed from neighboring properties and along the boundary fence lines. In September, 1985, PCB-contaminated soil was removed from storage yards on the Westinghouse property. Lead agency responsibility has been transferred from the RWQCB to the EPA. The RP entered into a consent decree with the EPA in August, 1988. Currently, a remedial investigation and feasibility study is being conducted which will address the remaining PCB-contaminated soil near the old storage tank. Additional borings and ground water monitoring wells will be installed.

O50 **PHILIPS SEMICONDUCTORS** **RCRA-TSDF** **1000880995**
ENE **730 EVELYN AVENUE** **CERC-NFRAP** **CAT000614073**
1/2-1 **SUNNYVALE, CA 94086** **RCRA-LQG**
0.987 mi. **FINDS**
5213 ft. **Site 1 of 2 in cluster O** **HIST CORTESE**
SLIC
Relative: **HWP**
Lower

Actual: RCRA-TSDF:
85 ft. Date form received by agency: 02/28/2008

Facility name:	PHILIPS SEMICONDUCTORS
Facility address:	730 EAST EVELYN AVE SUNNYVALE, CA 94086
EPA ID:	CAT000614073
Mailing address:	299 FAIRCHILD DRIVE MOUNTAIN VIEW, AK 94043
Contact:	J. WESLEY HAWTNOME
Contact address:	Not reported Not reported
Contact country:	US
Contact telephone:	(650) 960-1640
Contact email:	HAWTNORNEI@LOCUSTE.COM
EPA Region:	09
Classification:	TSDF
Description:	Handler is engaged in the treatment, storage or disposal of hazardous waste
Classification:	Large Quantity Generator
Description:	Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name:	CITY OF SUNNYVALE
Owner/operator address:	700 ALL AMERICAN WAY SUNNYVALE, CA 94088
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	06/15/1969
Owner/Op end date:	Not reported
Owner/operator name:	PHILIPS SEMICONDUCTORS
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:	06/15/1990

PHILIPS SEMICONDUCTORS (Continued) **1000880995**

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

. Waste code: F001
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLORETHYLENE, 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.

Historical Generators:
Date form received by agency: 04/07/2006
Site name: PHILIPS SEMICONDUCTORS
Classification: Large Quantity Generator

. Waste code: 351
. Waste name: 351

. Waste code: F001
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLORETHYLENE, 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.

Date form received by agency: 04/07/2006
Site name: PHILIPS SEMICONDUCTORS
Classification: Small Quantity Generator

Date form received by agency: 02/20/2004
Site name: PHILIPS SEMICONDUCTORS, INC.
Classification: Large Quantity Generator

. Waste code: D040

PHILIPS SEMICONDUCTORS (Continued) **1000880995**

. Waste name: TRICHLORETHYLENE

. Waste code: F001
. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLORETHYLENE, 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.

Date form received by agency: 10/12/2000
Site name: PHILIPS SEMICONDUCTORS - EVELYN
Classification: Large Quantity Generator

Date form received by agency: 03/04/1999
Site name: PHILIPS SEMICONDUCTORS
Classification: Large Quantity Generator

Date form received by agency: 03/25/1996
Site name: PHILIPS SEMICONDUCTORS
Classification: Large Quantity Generator

Date form received by agency: 02/24/1994
Site name: PHILIPS SEMICONDUCTORS
Classification: Large Quantity Generator

Date form received by agency: 06/09/1993
Site name: PHILIPS SEMICONDUCTORS
Classification: Small Quantity Generator

Date form received by agency: 11/03/1992
Site name: PHILIPS SEMICONDUCTORS
Classification: Not a generator, verified

Corrective Action Summary:
Event date: 10/01/1987
Event: CA049PA

Violation Status: No violations found

CERC-NFRAP:
Site ID: 0902636
Federal Facility: Not a Federal Facility
NPL Status: Not on the NPL
Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information

CERCLIS-NFRAP Site Contact Details:
Contact Sequence ID: 13287918.00000
Person ID: 13003854.00000

Contact Sequence ID: 13293513.00000
Person ID: 13003858.00000

Contact Sequence ID: 13299371.00000
Person ID: 13004003.00000

PHILIPS SEMICONDUCTORS (Continued) **1000880995**

CERCLIS-NFRAP Assessment History:

Action:	DISCOVERY
Date Started:	/ /
Date Completed:	05/01/86
Priority Level:	Not reported
Action:	ARCHIVE SITE
Date Started:	/ /
Date Completed:	10/01/87
Priority Level:	Not reported
Action:	PRELIMINARY ASSESSMENT
Date Started:	/ /
Date Completed:	10/01/87
Priority Level:	NFRAP-Site does not qualify for the NPL based on existing information

FINDS:

Registry ID: 110002333868

Environmental Interest/Information System

California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

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.

HAZARDOUS WASTE BIENNIAL REPORTER

HIST CORTESE:

Region:	CORTESE
Facility County Code:	43
Reg By:	WBC&D
Reg Id:	2 438183N02

SLIC REG 2:

Region:	2
Facility ID:	43S0111
Facility Status:	Remedial action (cleanup) Underway
Date Closed:	Not reported
Local Case #:	Not reported
How Discovered:	RBD
Leak Cause:	Not reported
Leak Source:	Not reported
Date Confirmed:	Not reported
Date Prelim Site Assmnt Workplan Submitted:	Not reported
Date Preliminary Site Assessment Began:	Not reported
Date Pollution Characterization Began:	Not reported

PHILIPS SEMICONDUCTORS (Continued) **1000880995**

Date Remediation Plan Submitted: Not reported
Date Remedial Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

HWP:
EPA Id: CAT000614073
Cleanup Status: CLOSED
Latitude: 37.37218
Longitude: -122.0171
Facility Type: Historical - Non-Operating
Facility Size: Not reported
Team: Not reported
Supervisor: Not reported
Site Code: Not reported
Assembly District: 24
Senate District: 13
Public Information Officer: Not reported

Activities:
EPA Id: CAT000614073
Facility Type: Historical - Non-Operating
Unit Names: Not reported
Event Description: New Operating Permit - FINAL PERMIT - WITHDRAWAL REQUEST ACKNOWLEDGED
Actual Date: 08/19/1986

EPA Id: CAT000614073
Facility Type: Historical - Non-Operating
Unit Names: Not reported
Event Description: New Operating Permit - FINAL PERMIT - WITHDRAWAL REQUEST RECEIVED
Actual Date: 03/29/1986

Closure:
EPA Id: CAT000614073
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1, TANKSTR1
Event Description: Closure Final - RECEIVE CLOSURE CERTIFICATION
Actual Date: 01/30/1987

EPA Id: CAT000614073
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1, TANKSTR1
Event Description: Closure Final - ISSUE CLOSURE VERIFICATION
Actual Date: 01/30/1987

Alias:
EPA Id: CAT000614073
Facility Type: Historical - Non-Operating
Alias Type: FRS
Alias: 110002333868

O51 **PHILIPS SEMICONDUCTORS** **NPDES** **S101482334**
ENE **730 EVELYN** **SLIC** **N/A**
1/2-1 **SUNNYVALE, CA 94086** **ENF**
0.987 mi. **ENVIROSTOR**
5213 ft. **Site 2 of 2 in cluster O**

Relative: **Lower**

Actual: **85 ft.**

NPDES:

Npdes Number:	CAG912003
Facility Status:	Historical
Agency Id:	34292
Region:	2
Regulatory Measure Id:	372515
Order No:	R2-2009-0059
Regulatory Measure Type:	Enrollee
Place Id:	203609
WDID:	2 438183001
Program Type:	NPDNONMUNIPRCS
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	11/17/2009
Expiration Date Of Regulatory Measure:	09/30/2014
Termination Date Of Regulatory Measure:	11/05/2014
Discharge Name:	Philips Electronics North America Corporation
Discharge Address:	299 Fairchild Drive
Discharge City:	Mountain View
Discharge State:	CA
Discharge Zip:	94043
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported

PHILIPS SEMICONDUCTORS (Continued) **S101482334**

CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

SLIC:

Region:	STATE
Facility Status:	**Open - Remediation**
Status Date:	07/02/1988
Global Id:	SL18347767
Lead Agency:	SAN FRANCISCO BAY RWQCB (REGION 2)
Lead Agency Case Number:	1834700
Latitude:	37.380371
Longitude:	-122.035604
Case Type:	Cleanup Program Site
Case Worker:	MS
Local Agency:	Not reported
RB Case Number:	43S0111
File Location:	Regional Board
Potential Media Affected:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	* Volatile Organic Compounds (VOC)
Site History:	1/23/2008 Background: The 730 East Evelyn Avenue site is located between Wolfe Road and Fair Oaks Avenue. (see site location map). Land use in the area is predominantly commercial and light industrial. Philips operated a semiconductor fabrication facility that used volatile organic compounds (VOCs) such as trichloroethene (TCE) in manufacturing processes at this site from 1975 to 1984. Underground storage tanks (USTs) were used at the site. The site is no longer owned or operated by Philips, and is now occupied by the Bristol Commons apartment complex. The Regional Water Quality Control Board (Water Board) is the lead regulatory agency overseeing soil and groundwater investigation and cleanup activities at this site. Site Investigation: Site investigations began in 1982 to determine the vertical and horizontal extent of the impacted area with VOCs. The investigations found the USTs were VOC source areas. Groundwater at the site is located approximately 15 to 20 feet below the ground surface. The current maximum TCE concentration detected in groundwater beneath the site is 85 micrograms per liter. The TCE

PHILIPS SEMICONDUCTORS (Continued) **S101482334**

plume extends approximately 1,000 feet northeast of the site. There are no locations at the site where groundwater reaches the surface, or can be directly contacted. Shallow groundwater beneath the site is not used for drinking water. The City of Sunnyvale provides drinking water for the site and the surrounding areas. Site Cleanup: In 1983, the USTs and impacted soil were removed. Soil samples collected from the excavated areas confirmed that VOC concentrations were below soil cleanup standards. Treatment of impacted groundwater began in 1988, and continues today. The groundwater is pumped out from an extraction well and treated using granular activated carbon. The treatment process has significantly reduced contaminants at the site over the last two decades. The groundwater concentrations are monitored regularly using a network of wells, and reports are prepared and submitted annually to the Water Board for review. Next Steps: Groundwater monitoring and cleanup activities will continue until groundwater cleanup standards for the site are met.

Click here to access the California GeoTracker records for this facility:

ENF:

Region:	2
Facility Id:	203608
Agency Name:	Philips Electronics North America Corporation
Place Type:	Facility
Place Subtype:	Not reported
Facility Type:	Industrial
Agency Type:	Privately-Owned Business
# Of Agencies:	1
Place Latitude:	37.372195
Place Longitude:	-122.017042
SIC Code 1:	3674
SIC Desc 1:	Semiconductors and Related Devices
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	DISCHLND
Program Category1:	UNREGS
Program Category2:	UNREGS
# Of Programs:	1
WDID:	2 438183N02

PHILIPS SEMICONDUCTORS (Continued) **S101482334**

Reg Measure Id:	163443
Reg Measure Type:	Unregulated
Region:	2
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Historical
Status Date:	06/17/2005
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	N
Individual/General:	Not reported
Fee Code:	Not reported
Direction/Voice:	Passive
Enforcement Id(EID):	222509
Region:	2
Order / Resolution Number:	97-074
Enforcement Action Type:	Clean-up and Abatement Order
Effective Date:	06/18/1997
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	Not reported
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 2 438183N02
Description:	CAO-
Program:	DISCHLND
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	0.00
Initial Assessed Amount:	0.00
Liability $ Amount:	0.00
Project $ Amount:	0.00
Liability $ Paid:	0.00
Project $ Completed:	0.00
Total $ Paid/Completed Amount:	0.00

ENVIROSTOR:

Facility ID:	80001793
Status:	Inactive - Needs Evaluation
Status Date:	06/26/2009
Site Code:	Not reported
Site Type:	Corrective Action
Site Type Detailed:	Corrective Action

PHILIPS SEMICONDUCTORS (Continued) **S101482334**

Acres: 0
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: WM
Program Manager: Not reported
Supervisor: Mark Piros
Division Branch: Cleanup Berkeley
Assembly: 24
Senate: 13
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 37.37056
Longitude: -122.0166
APN: 209-14-012
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: 209-14-012
Alias Type: APN
Alias Name: CAT000614073
Alias Type: EPA Identification Number
Alias Name: 110002333868
Alias Type: EPA (FRS #)
Alias Name: 80001793
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Report
Completed Date: 10/01/1987
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
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

Facility ID: 43360010
Status: Refer: RWQCB
Status Date: 07/30/1981
Site Code: Not reported
Site Type: Historical
Site Type Detailed: * Historical
Acres: Not reported
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Referred - Not Assigned

PHILIPS SEMICONDUCTORS (Continued) **S101482334**

Division Branch:	Cleanup Berkeley
Assembly:	24
Senate:	13
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Not reported
Latitude:	37.37054
Longitude:	-122.0169
APN:	209-14-012
Past Use:	NONE SPECIFIED
Potential COC:	* HALOGENATED SOLVENTS * OXYGENATED SOLVENTS
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	SIGNETICS CORP.
Alias Type:	Alternate Name
Alias Name:	209-14-012
Alias Type:	APN
Alias Name:	43360010
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	* Discovery
Completed Date:	06/01/1981
Comments:	FACILITY IDENTIFIED INACTIVE SITE RWQCB
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
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

Count: 4 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
SUNNYVALE	S106112802	CONOCOPHILLIPS # 11213	1198 EL CAMINO REAL	94087	LUST, HIST LUST
SUNNYVALE	S100453852	SUMMERHILL CHERRY ORCHARD PROJECT	CRAWFORD & SARATOGA	94087	ENVIROSTOR
SUNNYVALE	S105512949	SUNNYVALE, CITY OF	FAIROAKS & 237 HWY		LUST
SUNNYVALE	1001231414	BP OIL #11232	603 OLD SAN FRANCISCO RD	94086	LUST

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 12/16/2014
Date Data Arrived at EDR: 01/08/2015
Date Made Active in Reports: 02/09/2015
Number of Days to Update: 32

Source: EPA
Telephone: N/A
Last EDR Contact: 04/08/2015
Next Scheduled EDR Contact: 07/20/2015
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 12/16/2014
Date Data Arrived at EDR: 01/08/2015
Date Made Active in Reports: 02/09/2015
Number of Days to Update: 32

Source: EPA
Telephone: N/A
Last EDR Contact: 04/08/2015
Next Scheduled EDR Contact: 07/20/2015
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal Delisted NPL site list

DELISTED NPL: National Priority List Deletions
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.

Date of Government Version: 12/16/2014
Date Data Arrived at EDR: 01/08/2015
Date Made Active in Reports: 02/09/2015
Number of Days to Update: 32

Source: EPA
Telephone: N/A
Last EDR Contact: 04/08/2015
Next Scheduled EDR Contact: 07/20/2015
Data Release Frequency: Quarterly

Federal CERCLIS list

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System
CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 11/11/2013
Date Made Active in Reports: 02/13/2014
Number of Days to Update: 94

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 05/29/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Quarterly

FEDERAL FACILITY: Federal Facility Site Information listing
A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 03/26/2015
Date Data Arrived at EDR: 04/08/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 64

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 04/08/2015
Next Scheduled EDR Contact: 07/20/2015
Data Release Frequency: Varies

Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned
Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. 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.

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 11/11/2013
Date Made Active in Reports: 02/13/2014
Number of Days to Update: 94

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 05/29/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report
CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/10/2015
Date Data Arrived at EDR: 03/31/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 72

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 03/31/2015
Next Scheduled EDR Contact: 07/13/2015
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

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). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/10/2015
Date Data Arrived at EDR: 03/31/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 72

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/31/2015
Next Scheduled EDR Contact: 07/13/2015
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

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). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/10/2015
Date Data Arrived at EDR: 03/31/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 72

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/31/2015
Next Scheduled EDR Contact: 07/13/2015
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

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.

Date of Government Version: 03/10/2015
Date Data Arrived at EDR: 03/31/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 72

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/31/2015
Next Scheduled EDR Contact: 07/13/2015
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

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). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/10/2015
Date Data Arrived at EDR: 03/31/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 72

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/31/2015
Next Scheduled EDR Contact: 07/13/2015
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal institutional controls / engineering controls registries

US ENG CONTROLS: Engineering Controls Sites List
A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 03/16/2015
Date Data Arrived at EDR: 03/17/2015
Date Made Active in Reports: 06/02/2015
Number of Days to Update: 77

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 06/01/2015
Next Scheduled EDR Contact: 09/14/2015
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls
A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 03/16/2015
Date Data Arrived at EDR: 03/17/2015
Date Made Active in Reports: 06/02/2015
Number of Days to Update: 77

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 06/01/2015
Next Scheduled EDR Contact: 09/14/2015
Data Release Frequency: Varies

LUCIS: Land Use Control Information System
LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/28/2015
Date Data Arrived at EDR: 05/29/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 13

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 05/18/2015
Next Scheduled EDR Contact: 08/31/2015
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System
Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 03/30/2015
Date Data Arrived at EDR: 03/31/2015
Date Made Active in Reports: 06/02/2015
Number of Days to Update: 63

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 03/31/2015
Next Scheduled EDR Contact: 07/13/2015
Data Release Frequency: Annually

State- and tribal - equivalent NPL

RESPONSE: State Response Sites
Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 05/04/2015
Date Data Arrived at EDR: 05/05/2015
Date Made Active in Reports: 05/14/2015
Number of Days to Update: 9

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/05/2015
Next Scheduled EDR Contact: 08/17/2015
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ENVIROSTOR: EnviroStor Database

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.

Date of Government Version: 05/04/2015
Date Data Arrived at EDR: 05/05/2015
Date Made Active in Reports: 05/14/2015
Number of Days to Update: 9

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/05/2015
Next Scheduled EDR Contact: 08/17/2015
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 05/18/2015
Date Data Arrived at EDR: 05/20/2015
Date Made Active in Reports: 06/05/2015
Number of Days to Update: 16

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 05/20/2015
Next Scheduled EDR Contact: 08/31/2015
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 6L: Leaking Underground Storage Tank Case Listing

For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LUST REG 9: Leaking Underground Storage Tank Report
Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks
California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Varies

LUST REG 2: Fuel Leak List
Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation
Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST: Geotracker's Leaking Underground Fuel Tank Report
Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 03/13/2015
Date Data Arrived at EDR: 03/18/2015
Date Made Active in Reports: 03/24/2015
Number of Days to Update: 6

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 03/18/2015
Next Scheduled EDR Contact: 06/29/2015
Data Release Frequency: Quarterly

SLIC: Statewide SLIC Cases
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 03/13/2015
Date Data Arrived at EDR: 03/18/2015
Date Made Active in Reports: 03/24/2015
Number of Days to Update: 6

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/18/2015
Next Scheduled EDR Contact: 06/29/2015
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: Annually

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 02/01/2013
Date Data Arrived at EDR: 05/01/2013
Date Made Active in Reports: 11/01/2013
Number of Days to Update: 184

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 04/03/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 01/30/2015
Date Data Arrived at EDR: 02/05/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 32

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 09/30/2014
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/13/2015
Number of Days to Update: 10

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Semi-Annually

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 01/08/2015
Date Data Arrived at EDR: 01/08/2015
Date Made Active in Reports: 02/09/2015
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 01/08/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Quarterly

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 02/03/2015
Date Data Arrived at EDR: 02/12/2015
Date Made Active in Reports: 03/13/2015
Number of Days to Update: 29

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Quarterly

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 01/23/2015
Date Data Arrived at EDR: 02/10/2015
Date Made Active in Reports: 03/13/2015
Number of Days to Update: 31

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 01/28/2015
Date Data Arrived at EDR: 01/30/2015
Date Made Active in Reports: 03/13/2015
Number of Days to Update: 42

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Quarterly

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 09/23/2014
Date Data Arrived at EDR: 11/25/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 65

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Varies

State and tribal registered storage tank lists

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 03/13/2015
Date Data Arrived at EDR: 03/18/2015
Date Made Active in Reports: 03/26/2015
Number of Days to Update: 8

Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 03/18/2015
Next Scheduled EDR Contact: 06/29/2015
Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities
A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 08/01/2009
Date Data Arrived at EDR: 09/10/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 21

Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 07/13/2015
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Quarterly

INDIAN UST R1: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 02/01/2013
Date Data Arrived at EDR: 05/01/2013
Date Made Active in Reports: 01/27/2014
Number of Days to Update: 271

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 04/28/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 09/30/2014
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/13/2015
Number of Days to Update: 10

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 01/30/2015
Date Data Arrived at EDR: 02/05/2015
Date Made Active in Reports: 03/13/2015
Number of Days to Update: 36

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 01/23/2015
Date Data Arrived at EDR: 02/13/2015
Date Made Active in Reports: 03/13/2015
Number of Days to Update: 28

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Semi-Annually

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 09/23/2014
Date Data Arrived at EDR: 11/25/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 65

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 01/29/2015
Date Data Arrived at EDR: 01/30/2015
Date Made Active in Reports: 03/13/2015
Number of Days to Update: 42

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 12/14/2014
Date Data Arrived at EDR: 02/13/2015
Date Made Active in Reports: 03/13/2015
Number of Days to Update: 28

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 02/03/2015
Date Data Arrived at EDR: 02/12/2015
Date Made Active in Reports: 03/13/2015
Number of Days to Update: 29

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Quarterly

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 04/13/2015
Next Scheduled EDR Contact: 07/27/2015
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 09/29/2014
Date Data Arrived at EDR: 10/01/2014
Date Made Active in Reports: 11/06/2014
Number of Days to Update: 36

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 04/02/2015
Next Scheduled EDR Contact: 07/13/2015
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties
Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 05/04/2015
Date Data Arrived at EDR: 05/05/2015
Date Made Active in Reports: 05/14/2015
Number of Days to Update: 9

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/05/2015
Next Scheduled EDR Contact: 08/17/2015
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 03/23/2015
Date Data Arrived at EDR: 03/24/2015
Date Made Active in Reports: 06/02/2015
Number of Days to Update: 70

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 03/24/2015
Next Scheduled EDR Contact: 07/06/2015
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 04/23/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 03/16/2015
Date Data Arrived at EDR: 03/18/2015
Date Made Active in Reports: 03/26/2015
Number of Days to Update: 8

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/18/2015
Next Scheduled EDR Contact: 06/29/2015
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 05/26/2015
Date Data Arrived at EDR: 05/28/2015
Date Made Active in Reports: 06/05/2015
Number of Days to Update: 8

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 05/18/2015
Next Scheduled EDR Contact: 08/31/2015
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 05/01/2015
Next Scheduled EDR Contact: 08/17/2015
Data Release Frequency: Varies

WMUDS/SWAT: Waste Management Unit Database
Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 05/06/2015
Next Scheduled EDR Contact: 08/24/2015
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Local Lists of Hazardous waste / Contaminated Sites

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 02/25/2015
Date Data Arrived at EDR: 03/10/2015
Date Made Active in Reports: 03/25/2015
Number of Days to Update: 15

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/29/2015
Next Scheduled EDR Contact: 09/14/2015
Data Release Frequency: Quarterly

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 05/04/2015
Date Data Arrived at EDR: 05/05/2015
Date Made Active in Reports: 05/14/2015
Number of Days to Update: 9

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/05/2015
Next Scheduled EDR Contact: 08/17/2015
Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 03/10/2015
Date Made Active in Reports: 03/18/2015
Number of Days to Update: 8

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 04/13/2015
Next Scheduled EDR Contact: 07/27/2015
Data Release Frequency: Varies

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 02/25/2015
Date Data Arrived at EDR: 03/10/2015
Date Made Active in Reports: 03/25/2015
Number of Days to Update: 15

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/29/2015
Next Scheduled EDR Contact: 09/14/2015
Data Release Frequency: No Update Planned

Local Lists of Registered Storage Tanks

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 09/23/2009
Date Data Arrived at EDR: 09/23/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 8

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 06/01/2015
Next Scheduled EDR Contact: 09/14/2015
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SWEEPS UST: SWEEPS UST Listing

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 1990'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.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/18/2014
Date Data Arrived at EDR: 03/18/2014
Date Made Active in Reports: 04/24/2014
Number of Days to Update: 37

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Varies

LIENS: Environmental Liens Listing
A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 03/11/2015
Date Data Arrived at EDR: 03/13/2015
Date Made Active in Reports: 03/24/2015
Number of Days to Update: 11

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 06/05/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Varies

DEED: Deed Restriction Listing
Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 03/09/2015
Date Data Arrived at EDR: 03/10/2015
Date Made Active in Reports: 03/18/2015
Number of Days to Update: 8

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 06/09/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System
Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 03/30/2015
Date Data Arrived at EDR: 03/31/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 72

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 03/31/2015
Next Scheduled EDR Contact: 07/13/2015
Data Release Frequency: Annually

CHMIRS: California Hazardous Material Incident Report System
California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 04/14/2015
Date Data Arrived at EDR: 04/29/2015
Date Made Active in Reports: 05/21/2015
Number of Days to Update: 22

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Varies

LDS: Land Disposal Sites Listing
The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units.

Date of Government Version: 03/13/2015
Date Data Arrived at EDR: 03/18/2015
Date Made Active in Reports: 03/24/2015
Number of Days to Update: 6

Source: State Water Quality Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/18/2015
Next Scheduled EDR Contact: 06/29/2015
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing
The State Water Resources Control Board and nine Regional Water Quality Control Boards partner with the Department of Defense (DoD) through the Defense and State Memorandum of Agreement (DSMOA) to oversee the investigation and remediation of water quality issues at military facilities.

Date of Government Version: 03/13/2015
Date Data Arrived at EDR: 03/18/2015
Date Made Active in Reports: 03/24/2015
Number of Days to Update: 6

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/18/2015
Next Scheduled EDR Contact: 06/29/2015
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch
Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated
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). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/10/2015
Date Data Arrived at EDR: 03/31/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 72

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/31/2015
Next Scheduled EDR Contact: 07/13/2015
Data Release Frequency: Varies

DOT OPS: Incident and Accident Data
Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 05/05/2015
Next Scheduled EDR Contact: 08/17/2015
Data Release Frequency: Varies

DOD: Department of Defense Sites
This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 04/14/2015
Next Scheduled EDR Contact: 07/27/2015
Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites
The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 06/06/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 09/18/2014
Number of Days to Update: 8

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 06/12/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 04/17/2015
Date Made Active in Reports: 06/02/2015
Number of Days to Update: 46

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 03/30/2015
Next Scheduled EDR Contact: 07/13/2015
Data Release Frequency: Varies

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 11/25/2013
Date Data Arrived at EDR: 12/12/2013
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 74

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 06/12/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010
Date Data Arrived at EDR: 10/07/2011
Date Made Active in Reports: 03/01/2012
Number of Days to Update: 146

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 05/26/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 12/30/2014
Date Data Arrived at EDR: 12/31/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 29

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 06/03/2015
Next Scheduled EDR Contact: 09/14/2015
Data Release Frequency: Semi-Annually

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 02/12/2015
Date Made Active in Reports: 06/02/2015
Number of Days to Update: 110

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 01/29/2015
Next Scheduled EDR Contact: 06/08/2015
Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 01/15/2015
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 14

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 03/27/2015
Next Scheduled EDR Contact: 07/06/2015
Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 05/20/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 05/20/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

SSTS: Section 7 Tracking Systems
Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 04/10/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 01/23/2015
Date Data Arrived at EDR: 02/06/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 04/09/2015
Next Scheduled EDR Contact: 07/27/2015
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 10/15/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 33

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 04/17/2015
Next Scheduled EDR Contact: 07/27/2015
Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 03/31/2015
Date Data Arrived at EDR: 04/09/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 63

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 06/04/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Quarterly

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 04/07/2015
Date Data Arrived at EDR: 04/09/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 04/09/2015
Next Scheduled EDR Contact: 07/20/2015
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 01/18/2015
Date Data Arrived at EDR: 02/27/2015
Date Made Active in Reports: 03/25/2015
Number of Days to Update: 26

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 06/10/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 02/01/2015
Date Data Arrived at EDR: 02/13/2015
Date Made Active in Reports: 03/25/2015
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 02/26/2013
Date Made Active in Reports: 04/19/2013
Number of Days to Update: 52

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 05/29/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Biennially

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 05/18/2015
Date Data Arrived at EDR: 05/20/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 22

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 05/20/2015
Next Scheduled EDR Contact: 08/31/2015
Data Release Frequency: Quarterly

UIC: UIC Listing
A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 11/19/2014
Date Data Arrived at EDR: 12/15/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 45

Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 03/20/2015
Next Scheduled EDR Contact: 06/29/2015
Data Release Frequency: Varies

CORTESE: "Cortese" Hazardous Waste & Substances Sites List
The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 03/10/2015
Date Data Arrived at EDR: 03/31/2015
Date Made Active in Reports: 04/10/2015
Number of Days to Update: 10

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 03/31/2015
Next Scheduled EDR Contact: 07/13/2015
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List
The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

NOTIFY 65: Proposition 65 Records
Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 10/21/1993
Date Data Arrived at EDR: 11/01/1993
Date Made Active in Reports: 11/19/1993
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 03/23/2015
Next Scheduled EDR Contact: 07/06/2015
Data Release Frequency: No Update Planned

DRYCLEANERS: Cleaner Facilities
A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 02/18/2015
Date Data Arrived at EDR: 02/20/2015
Date Made Active in Reports: 03/12/2015
Number of Days to Update: 20

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 06/05/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Annually

WIP: Well Investigation Program Case List
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 03/30/2015
Next Scheduled EDR Contact: 07/13/2015
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ENF: Enforcement Action Listing
A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 04/30/2015
Date Data Arrived at EDR: 05/01/2015
Date Made Active in Reports: 05/13/2015
Number of Days to Update: 12

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data
Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 10/15/2014
Date Made Active in Reports: 11/19/2014
Number of Days to Update: 35

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 04/17/2015
Next Scheduled EDR Contact: 07/27/2015
Data Release Frequency: Annually

EMI: Emissions Inventory Data
Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 03/25/2014
Date Made Active in Reports: 04/28/2014
Number of Days to Update: 34

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 03/27/2015
Next Scheduled EDR Contact: 07/06/2015
Data Release Frequency: Varies

INDIAN RESERV: Indian Reservations
This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 04/14/2015
Next Scheduled EDR Contact: 07/27/2015
Data Release Frequency: Semi-Annually

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing
The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011
Date Data Arrived at EDR: 03/09/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 05/21/2015
Next Scheduled EDR Contact: 08/31/2015
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing
A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 05/18/2015
Date Data Arrived at EDR: 05/22/2015
Date Made Active in Reports: 06/05/2015
Number of Days to Update: 14

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 05/18/2015
Next Scheduled EDR Contact: 08/31/2015
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011
Date Data Arrived at EDR: 10/19/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 83

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 05/01/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing
Financial Assurance information

Date of Government Version: 04/30/2015
Date Data Arrived at EDR: 05/01/2015
Date Made Active in Reports: 05/13/2015
Number of Days to Update: 12

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Varies

EPA WATCH LIST: EPA WATCH LIST
EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 05/07/2015
Next Scheduled EDR Contact: 08/24/2015
Data Release Frequency: Quarterly

FEDLAND: Federal and Indian Lands
Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 04/14/2015
Next Scheduled EDR Contact: 07/27/2015
Data Release Frequency: N/A

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 03/16/2015
Date Data Arrived at EDR: 03/18/2015
Date Made Active in Reports: 03/24/2015
Number of Days to Update: 6

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/18/2015
Next Scheduled EDR Contact: 06/29/2015
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LEAD SMELTER 1: Lead Smelter Sites
A listing of former lead smelter site locations.

Date of Government Version: 11/25/2014
Date Data Arrived at EDR: 11/26/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 64

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 04/10/2015
Next Scheduled EDR Contact: 07/20/2015
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites
A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

2020 COR ACTION: 2020 Corrective Action Program List
The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 04/22/2013
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 05/14/2015
Next Scheduled EDR Contact: 08/24/2015
Data Release Frequency: Varies

WDS: Waste Discharge System
Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 05/20/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Quarterly

US FIN ASSUR: Financial Assurance Information
All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 03/09/2015
Date Data Arrived at EDR: 03/10/2015
Date Made Active in Reports: 03/25/2015
Number of Days to Update: 15

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 05/14/2015
Next Scheduled EDR Contact: 08/31/2015
Data Release Frequency: Quarterly

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 10/17/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 3

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 05/14/2015
Next Scheduled EDR Contact: 08/24/2015
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

US AIRS MINOR: Air Facility System Data
A listing of minor source facilities.

Date of Government Version: 10/16/2014
Date Data Arrived at EDR: 10/31/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 17

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 03/30/2015
Next Scheduled EDR Contact: 07/13/2015
Data Release Frequency: Annually

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)
The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/16/2014
Date Data Arrived at EDR: 10/31/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 17

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 03/30/2015
Next Scheduled EDR Contact: 07/13/2015
Data Release Frequency: Annually

HWP: EnviroStor Permitted Facilities Listing
Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 05/26/2015
Date Data Arrived at EDR: 05/28/2015
Date Made Active in Reports: 06/05/2015
Number of Days to Update: 8

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/28/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Quarterly

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 06/12/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Varies

MWMP: Medical Waste Management Program Listing
The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 01/16/2015
Date Data Arrived at EDR: 03/10/2015
Date Made Active in Reports: 03/18/2015
Number of Days to Update: 8

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 06/09/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Varies

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 04/15/2015
Next Scheduled EDR Contact: 07/27/2015
Data Release Frequency: Varies

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 04/13/2015
Date Data Arrived at EDR: 04/15/2015
Date Made Active in Reports: 04/23/2015
Number of Days to Update: 8

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 04/15/2015
Next Scheduled EDR Contact: 07/27/2015
Data Release Frequency: Quarterly

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR US Hist Auto Stat: EDR Exclusive Historic Gas 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. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR US Hist Cleaners: EDR Exclusive Historic Dry 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. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies