

LEXUS OF PLEASANTON

PUD MAJOR MODIFICATION

4345 ROSEWOOD DR.
PLEASANTON, CA 94588

Architect's Project # 10-89
Owner's Project # LXP
Date of Issue 04.14.14



INDEX OF DRAWINGS

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PUD-85-02-02D-06M
Lexus of Pleasanton
EXHIBIT B
RECEIVED MARCH 7, 2014

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4345 ROSEWOOD DRIVE
PLEASANTON, CA 94588

No.	Date	Issue / Revision Description	By

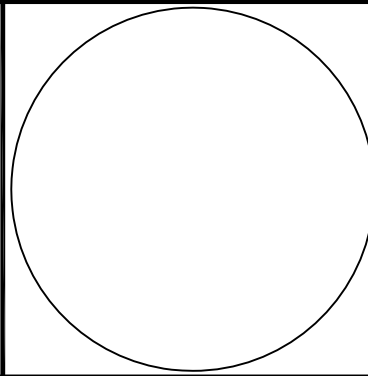


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Plotted:	jkondovski	
By		Date

LEXUS OF PLEASANTON SITE IMPROVEMENTS
FIRST FLOOR PLAN

CITY OF PLEASANTON ALAMEDA COUNTY CALIFORNIA

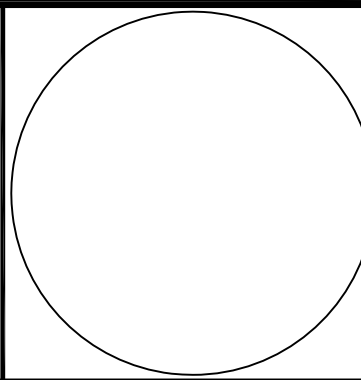
Project No.: 950-003
Scale: 1" = 30'
Date: MARCH 05, 2014

A1



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LEXUS OF PLEASANTON
4345 ROSEWOOD DRIVE
PLEASANTON, CA 94588

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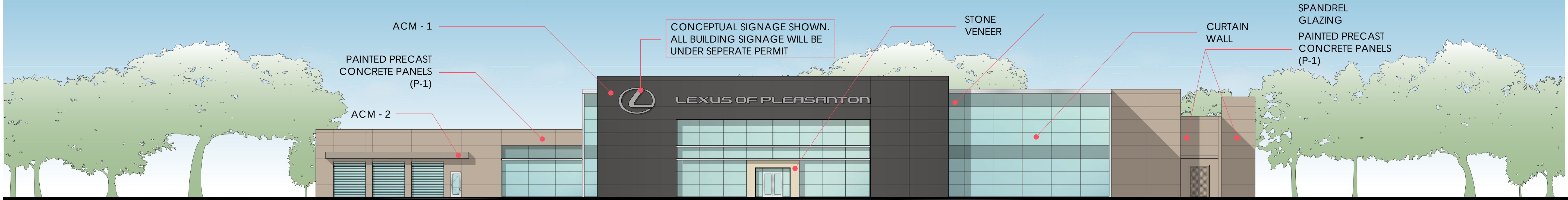
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Designer:	PB
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Drawn:	
Plotted:	jkondovski
By	Date

LEXUS OF PLEASANTON SITE IMPROVEMENTS
SECOND FLOOR PLAN

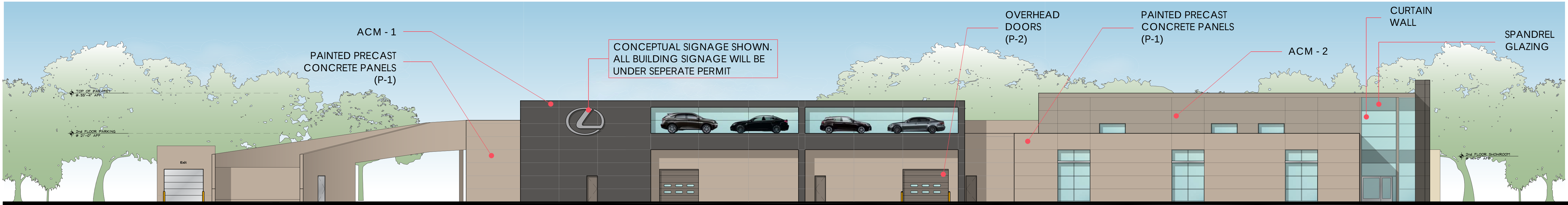
CITY OF PLEASANTON ALAMEDA COUNTY CALIFORNIA

A2

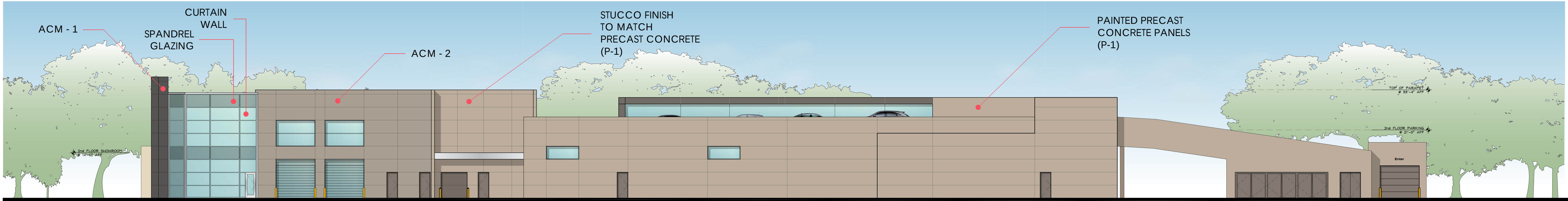
Project No.: 950-003
Scale: 1" = 30'
Date: MARCH 05, 2014



FRONT / SHOWROOM ELEVATION



SIDE / SERVICE RECEPTION ELEVATION



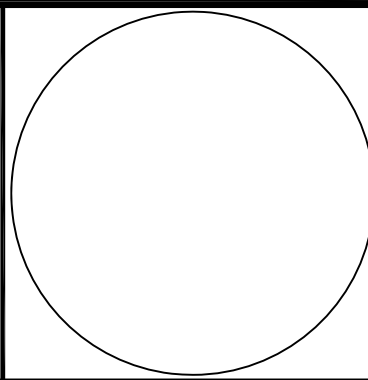
SIDE / DISPLAY AND SERVICE ELEVATION



SERVICE BAYS ELEVATION

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4345 ROSEWOOD DRIVE
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LEXUS OF PLEASANTON SITE IMPROVEMENTS
EXTERIOR ELEVATIONS

CITY OF PLEASANTON ALAMEDA COUNTY CALIFORNIA

Project No.: 950-003
Scale: 1" = 30'
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A3



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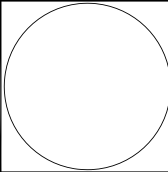
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LEXUS OF PLEASANTON SITE IMPROVEMENTS
EXTERIOR RENDERING

CITY OF PLEASANTON ALAMEDA COUNTY CALIFORNIA

G1

Project No.: 950-003
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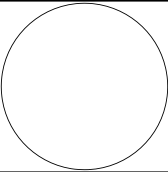


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EXTERIOR RENDERING

CITY OF PLEASANTON ALAMEDA COUNTY CALIFORNIA

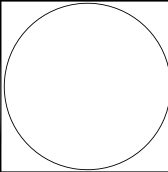
G2

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LEXUS OF PLEASANTON SITE IMPROVEMENTS
EXTERIOR RENDERING

CITY OF PLEASANTON ALAMEDA COUNTY CALIFORNIA

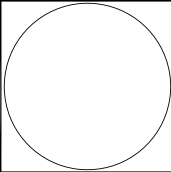
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LEXUS OF PLEASANTON SITE IMPROVEMENTS
EXTERIOR RENDERING

CITY OF PLEASANTON ALAMEDA COUNTY CALIFORNIA

G4

Project No.: 950-003
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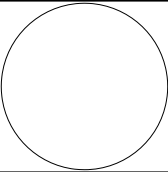
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LEXUS OF PLEASANTON SITE IMPROVEMENTS
EXTERIOR RENDERING

CITY OF PLEASANTON ALAMEDA COUNTY CALIFORNIA

G5

Project No.: 950-003
Scale: 1" = 30'
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4345 ROSEWOOD DRIVE
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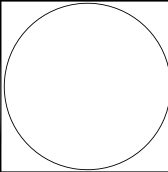


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LEXUS OF PLEASANTON SITE IMPROVEMENTS
EXTERIOR RENDERING

CITY OF PLEASANTON ALAMEDA COUNTY CALIFORNIA

G6

Project No.: 950-003
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Date: MARCH 05, 2014

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LEXUS OF PLEASANTON

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PLEASANTON, CA 94588



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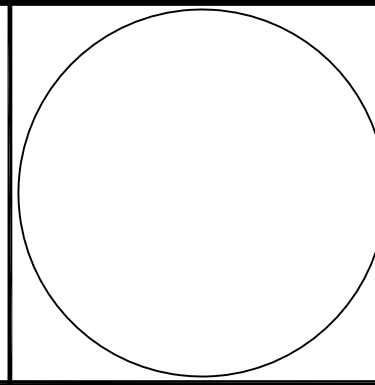
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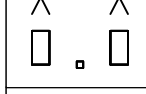
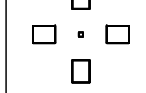
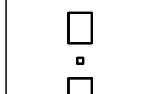
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By		Date

LEXUS OF PLEASANTON SITE IMPROVEMENTS
SITE LIGHTING

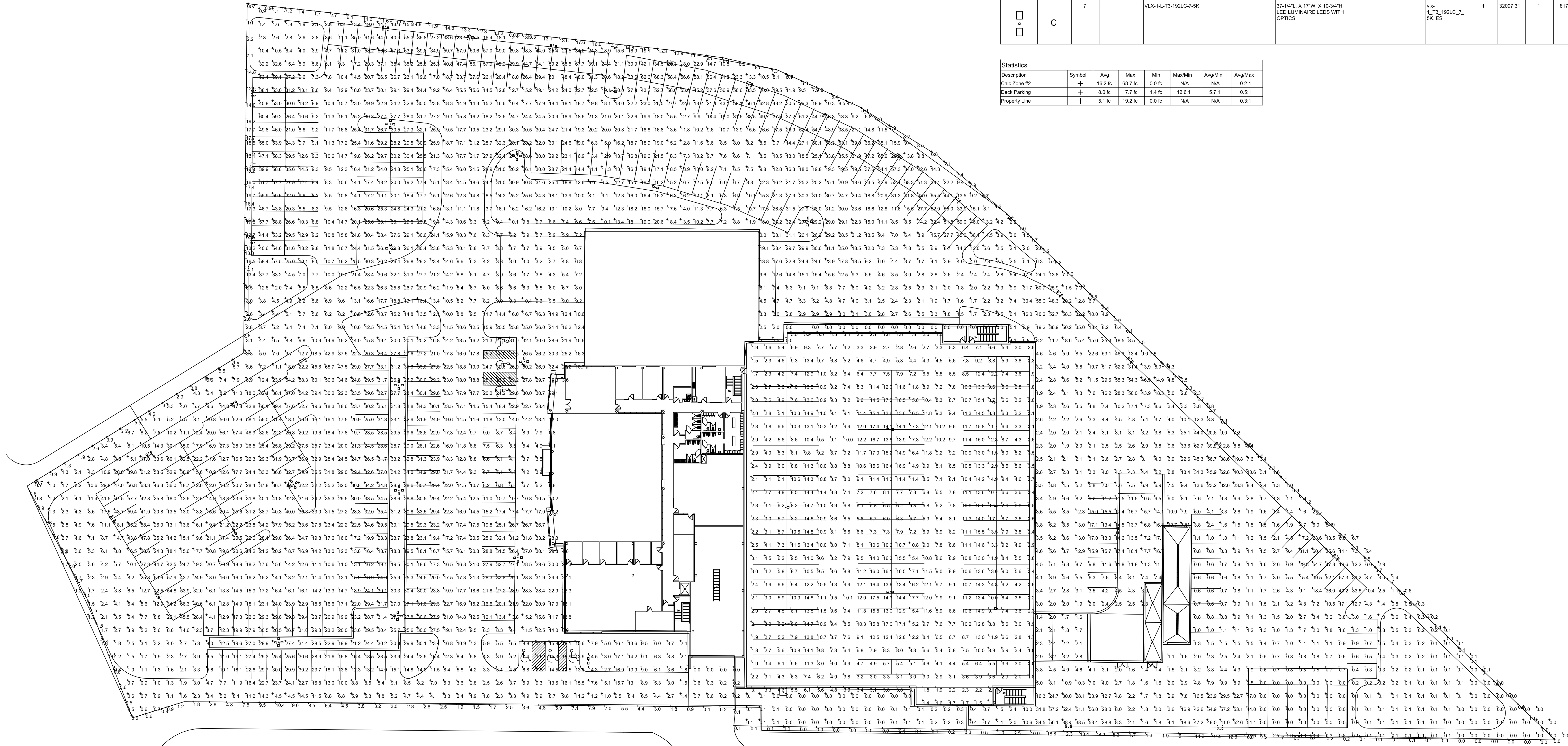
CITY OF PLEASANTON ALAMEDA COUNTY CALIFORNIA

E1

Project No.: 950-003
Scale: 1" = 30'
Date: MARCH 05, 2014

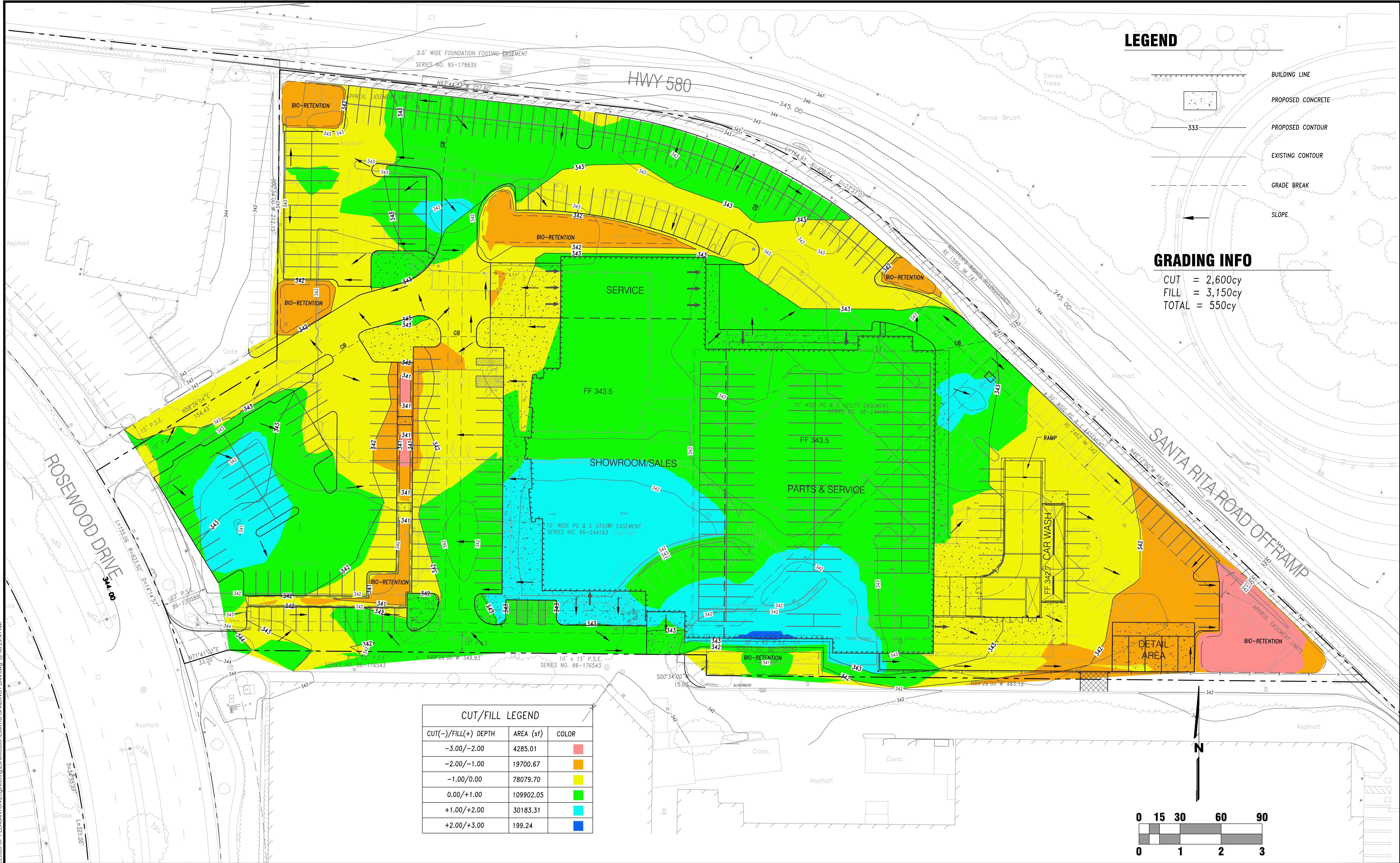
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Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lamp	Filename	Number Lamps	Lumens Per Lamp
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	B	11		VLX-1-L-T3-192LC-7-5K	37-1/4"TL X 17"W. X 10-3/4"H. LED LUMINAIRE LEDS WITH OPTICS		vlx_1_T3_192LC_7_5K.IES	1	32097.31
	C	7		VLX-1-L-T3-192LC-7-5K	37-1/4"TL X 17"W. X 10-3/4"H. LED LUMINAIRE LEDS WITH OPTICS		vlx_1_T3_192LC_7_5K.IES	1	32097.31

Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Calc Zone #2	+	16.2 fc	68.7 fc	0.0 fc	N/A	0.2:1
Deck Parking	+	8.0 fc	17.7 fc	1.4 fc	12.8:1	5.7:1
Property Line	+	5.1 fc	19.2 fc	0.0 fc	N/A	0.3:1



1 SITE PLAN — PHOTOMETRICS
E1 1" = 30'-0"

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LEGEND

- BUILDING LINE
- PROPOSED CONCRETE
- PROPOSED CONTOUR
- EXISTING CONTOUR
- GRADE BREAK
- SLOPE

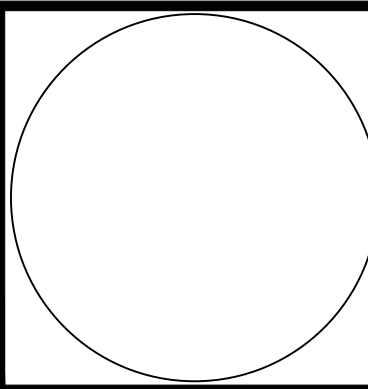
GRADING INFO

CUT = 2,600cy
FILL = 3,150cy
TOTAL = 550cy

CUT/FILL LEGEND			
CUT(-)/FILL(+)	DEPTH	AREA (sf)	COLOR
-3.00/-2.00		4285.01	
-2.00/-1.00		19700.67	
-1.00/0.00		78079.70	
0.00/+1.00		109902.05	
+1.00/+2.00		30183.31	
+2.00/+3.00		199.24	

HENDRICK AUTOMOTIVE GROUP
LEXUS OF PLEASANTON
4345 ROSEWOOD DRIVE
PLEASANTON, CA 94588

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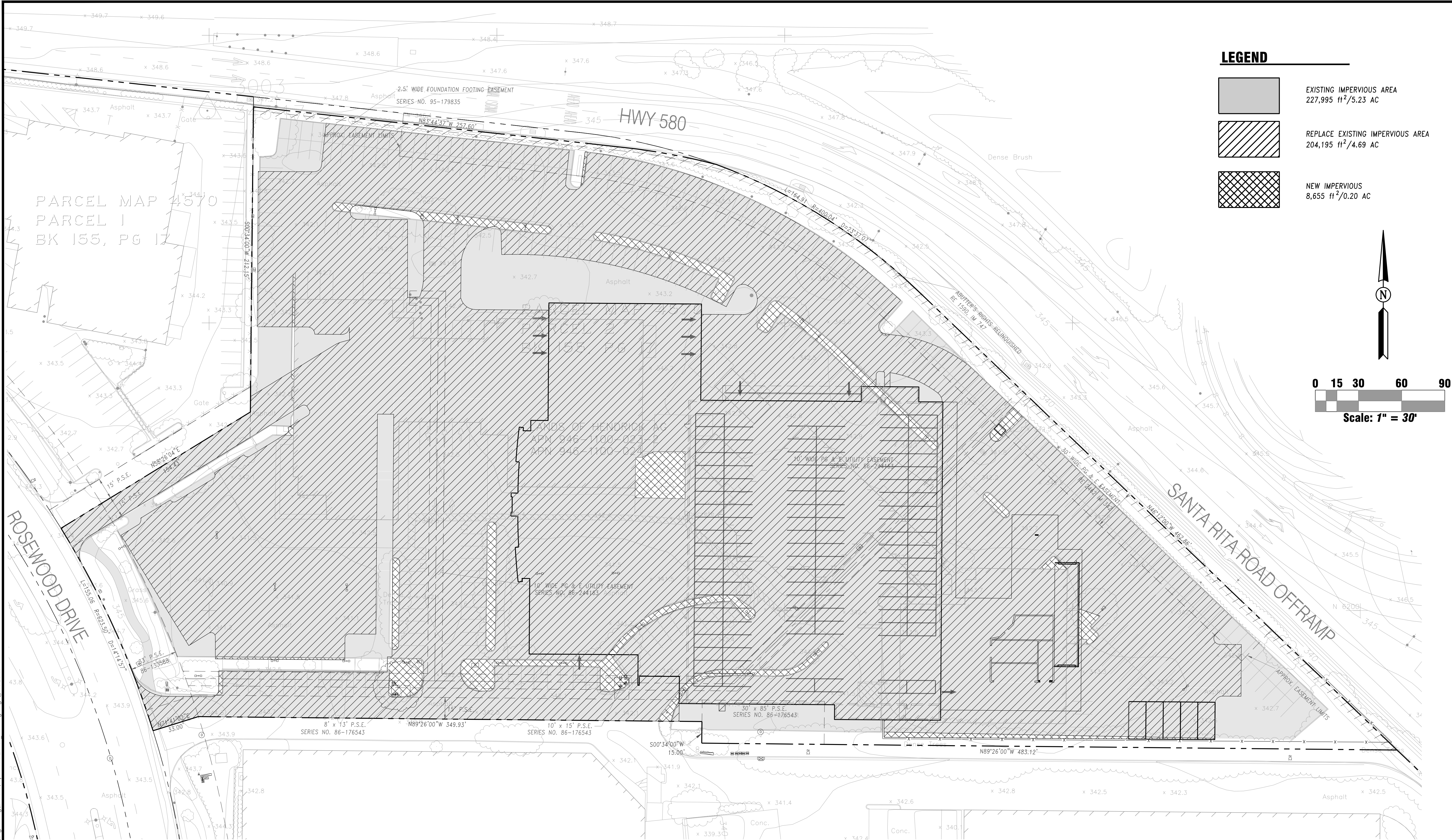


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LEXUS OF PLEASANTON SITE IMPROVEMENTS
SCHEMATIC GRADING PLAN
CITY OF PLEASANTON ALAMEDA COUNTY CALIFORNIA

C2

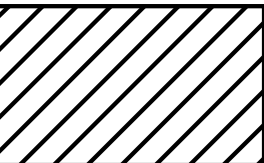
Project No.: 950-003
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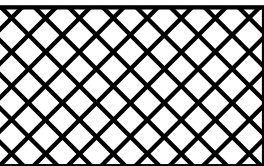
LEGEND



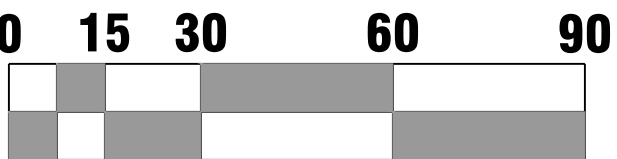
EXISTING IMPERVIOUS AREA
227,995 ft²/5.23 AC



REPLACE EXISTING IMPERVIOUS AREA
204,195 ft²/4.69 AC



NEW IMPERVIOUS
8,655 ft²/0.20 AC

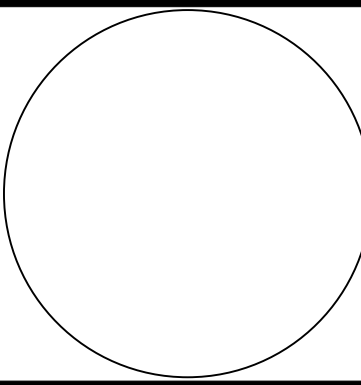


Scale: 1" = 30'

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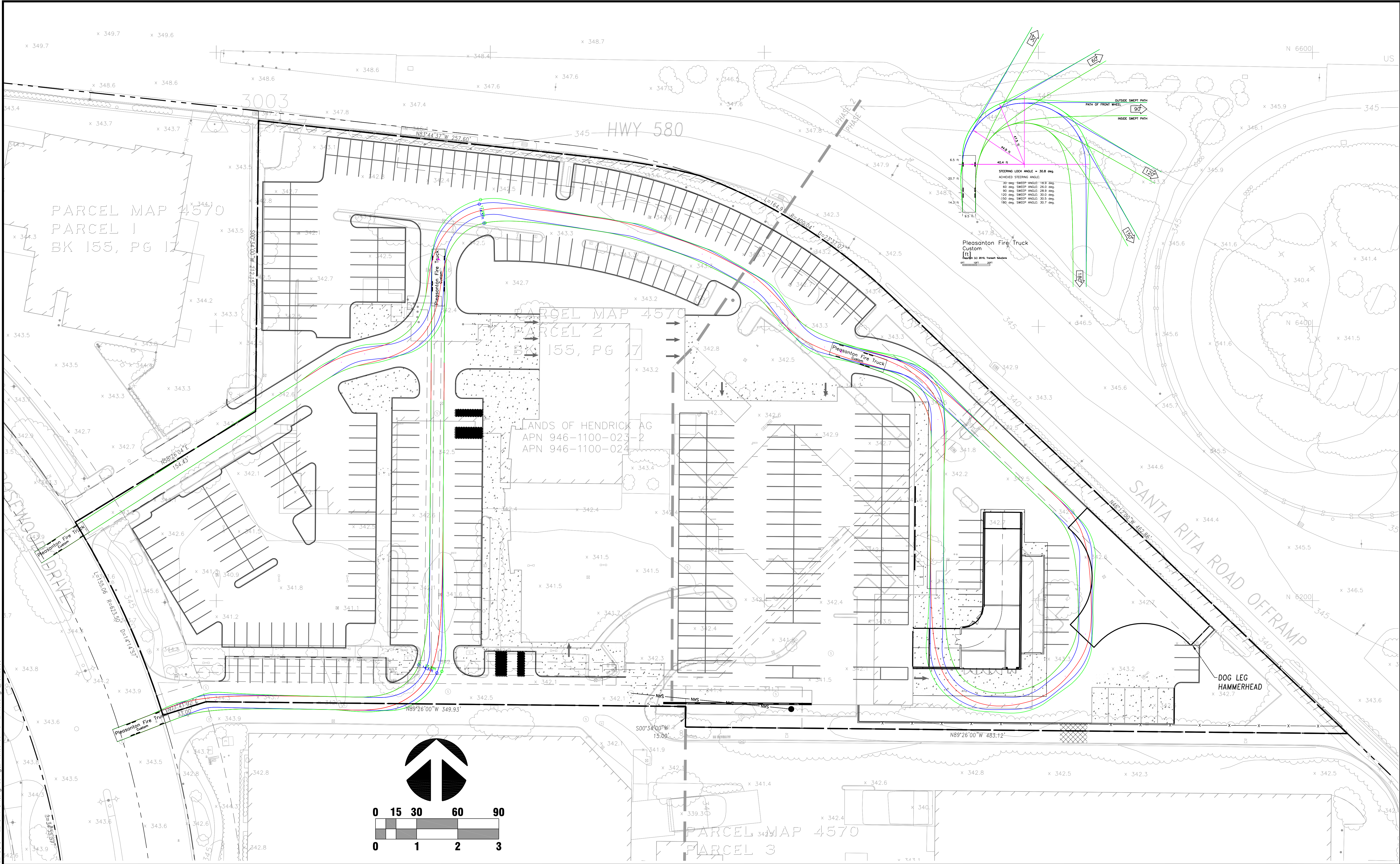


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IMPERVIOUS EXHIBIT		
CITY OF PLEASANTON	ALAMEDA COUNTY	CALIFORNIA

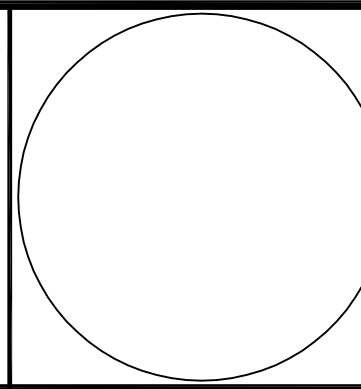
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LEXUS OF PLEASANTON SITE IMPROVEMENTS
FIRE TRUCK TURNING EXHIBIT

CITY OF PLEASANTON ALAMEDA COUNTY CALIFORNIA

C4

Project No.: 950-003
Scale: 1" = 30'
Date: MARCH 28, 2014

Re: LEXUS OF PLEASANTON – PUD MAJOR MODIFICATION SUBMITTAL

March 7, 2014

PUD-85-02-02D-06M

Lexus of Pleasanton

EXHIBIT B

EXISTING SITE AND DEMOLITION

RECEIVED MARCH 7, 2014

The site is currently zoned PUD-C-C. The existing 5.88 acre site consists of four buildings, including the Lexus and Infiniti showrooms and parts/service buildings. These buildings will be demolished in a phased construction plan and a new multi-level Lexus dealership will be developed. The existing site is mostly paved with asphalt for customer parking, inventory storage, and service vehicle storage. The majority of the existing site will be reconfigured to maximize the use of available space to accommodate parking and storage, as well as modernize the site.

GENERAL SITE

The site and building layout has been optimized to accommodate vehicles for sale, storage and display, customer sales and service, vehicle transportation and deliveries as well as providing emergency site access and circulation. The dealership will not use outdoor speakers. An additional fire apparatus access from the southern shared driveway to the southeast rear portion of the site has been provided as requested by the City, pending approval from the adjacent property owner. Energy efficient LED type, full cut-off lighting fixtures will be utilized on this project. The locations, sizes and composition of the site signage will be a part of a separate submittal package.

GRADING AND DRAINAGE

The majority of the site will be re-graded based on the new site plan. The site is fairly flat, but the new site plan will allow for the design of improved drainage. There are no plans for a radical change in site elevations, so cut and fill operations will be minimized during construction. Any needed drainage upgrades will be incorporated into the new design.

STORM WATER

This project will fall under the requirements outlined in the Alameda County C3 Storm Water Manual. The new site plan will include bio-retention areas to treat the storm water before it enters the storm drainage system. Additionally, trash capture devices will be installed at the storm drain system as it exits the site.

UTILITIES AND FIRE PROTECTION

Any existing sanitary sewer, domestic water, fire water, gas, and electrical lines that do not conflict with new construction will be reused. All other utility features will be new and designed in accordance with current standards. The new car wash will utilize 80% reclaimed water for its operation. Layout of any new fire water lines will be coordinated with the City and Livermore-Pleasanton Fire Department.

PAVING AND STRIPING

The site will be developed with all new parking areas, drive aisles, and entry/exits. Parking stalls will be configured to meet the current City design standards and will include areas for customer parking. Vehicle storage spaces and drive aisles may not comply with the City parking dimensional standards. Vehicle storage areas are not accessible to general public and vehicles in these areas are operated by staff only. Drive aisles and vehicle access will be developed to accommodate general traffic as well as emergency vehicle access. The exact locations, counts and the dimensions of the parking areas and drive aisles are subject to change upon final design of the building and traffic flow. The second floor above the service area of the building will be vehicle parking and will be accessed via an external ramp. The ramp will allow normal vehicle and fire apparatus passing under the ramp via a bridge with a minimum 13'-6" clearance. The site will have various concrete vehicle display areas as depicted on the Site Plan.

BUILDING

This project and the proposed building are required to meet the latest facility requirements that Lexus is demanding. This requires an increase in the showroom, Offices, Parts and Service Stall count, with a total building size of approximately 83,300 SF. In order to build the new facility and at the same time maintain the existing Lexus business on the same site, this project will be built in 2 phases. The first phase will consist of the New Service Department stalls, the new Carwash and the rooftop parking for a total of approximately 50,000 SF. The second phase will include the remaining portions of the building, including Showroom, Offices, Parts and Service Write-up for a total of approximately 33,300 SF.

The new building will consist of a new 2 story showroom with a central entrance. The front of the showroom will consist of Curtain Wall glazing, Aluminum Composite Material Panels (ACM) and a Stone element around the main entrance doors. The showroom will have both vehicle displays and sales areas. Adjacent to the showroom will be a customer waiting lounge for customers to use while they wait on their vehicle to be serviced. On the North side of the building will be a new 3 lane service write-up area, where service customers will go when requiring service work on their vehicle. This will be a 1 story portion of the building with the Exterior consisting of Precast Concrete panels and ACM. The 3 vehicle entrance doors will be high speed coiling doors with vision panels. The space will have floor tile and a finished ceiling. To the right of the showroom will be offices and a New Vehicle Delivery space, with space for 2 vehicles. This is where the customers will take delivery of their new vehicle. The exterior on both sides of the main showroom will consist of a 2 story Curtain wall system with spandrel glass panels located at the second floor and at the roof structure.

The second floor area that surrounds the showroom will house various office spaces used to support the sales operation. There is also a 2 level parts department will be located between the showroom area and the service area. The Parts department loading area will be located on the South side of the building and face the existing loading and trash enclosure from the retail development directly south of the site.

The New Service department will have 61 Service bays and will have roof top parking above. The exterior walls will be precast concrete panels with a small area of ACM and glazing that will face the off ramp from the freeway. Roof top lighting will be located away from the exterior perimeter and will be screened from the freeway by the decorative display feature on the north side of the building.

To the rear of the property there will be a concrete ramp up to the roof top parking with a carwash attached. At the very east of the site will be a detail canopy.

PRELIMINARY LANDSCAPE DESIGN CONCEPT

The proposed site design for the new Lexus of Pleasanton will require that the majority of existing plant materials will be removed to allow for the reconfiguration of buildings, vehicular circulation, car display and customer parking areas.

The proposed landscape design approach is to simplify the planting design by using a limited palette of plant species; create tree groupings at focal point planters located within the interior of the site; and to strategically distribute trees to preserve views of the vehicle display areas on-site and from Highway 580 and Rosewood Drive. In addition, the understory plant material will create a continuous low plant massing along these view corridors, allowing uninterrupted viewing into the dealership lot while passing at relatively moderate to high speeds. Plant groupings will also enhance visual interest at project entryways, parking islands, along the building foundations and site perimeter planter locations.

Plant materials will consist of predominately California natives and Mediterranean plant species adapted to the local and regional climate conditions. These plant types require less water usage and provide ease of maintenance. Tree and understory plant materials within the engineered BMP (infiltration) planters shall conform to the plant material recommendations provided in the California Stormwater (C.3) Technical Guide.

The landscape irrigation design will conform to the California Model Efficient Landscape Ordinance AB 1881 adopted by the California Department of Water Resources. While maintaining continued health, appearance and function for plant materials, irrigation delivery will be a water-efficient system designed to respond to low water-use plant materials. The irrigation system components will include efficient low flow, low gallonage emitters and bubblers, smart ET irrigation controller and weather sensors that program efficient 'run times' based on real-time plant water needs.

***STONERIDGE CORPORATE PLAZA EXPANSION
AIR QUALITY ASSESSMENT
PLEASANTON, CALIFORNIA***

April 3, 2014



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Introduction

This report addresses air quality impacts associated with the proposed expansion of the Stoneridge Corporate Plaza in Pleasanton, California. The project proposes to construct a six-story, approximately 430,000 square foot office building, parking garage, and surface parking on the BART property. The project would also construct a parking garage and surface parking on the Stoneridge Corporate Plaza property. The proposed project is located on two sites: the approximately 25.4-acre Stoneridge Corporate Plaza property located at 6120-6160 Stoneridge Mall Road and the approximately 6.9-acre undeveloped BART property located at 6110 Stoneridge Mall Road. The project would change travel patterns in the area and air pollutant emissions. In addition, construction of the project would emit air pollutants, and the community health risk impacts from project construction on nearby sensitive receptors were also assessed. This analysis was conducted following guidance provided by the Bay Area Air Quality Management District (BAAQMD)¹.

Project Description

As shown in Figure 1, a new six-story office building and five-level parking structure would be constructed east of the existing BART parking garage. A small portion of the office building crosses the southeastern property line onto the Stoneridge Corporate Plaza parcel. The five-level parking garage would be set back approximately 25 ft. from the northern property line along I-580. In addition, a four-level parking garage would be constructed near the southwest corner of the Stoneridge Corporate Plaza site adjacent to the Stoneridge Mall Road and Embarcadero Court intersection.

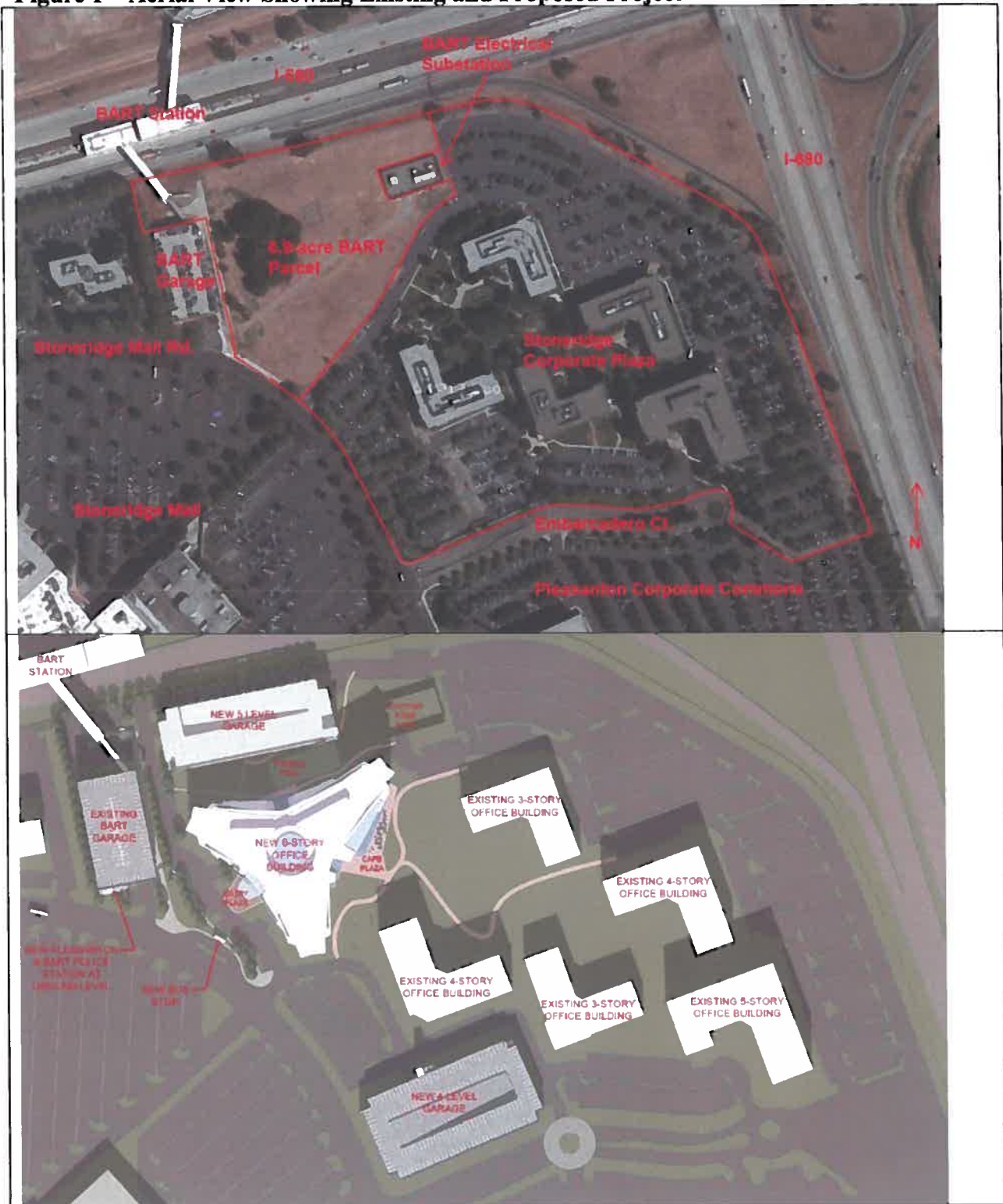
Setting

The project is located in the San Francisco Bay Area Air Basin. Ambient air quality standards have been established at both the State and Federal level. The Bay Area meets all ambient air quality standards with the exception of ground-level ozone, respirable particulate matter (PM₁₀), and fine particulate matter (PM_{2.5}).

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

¹ BAAQMD, 2011. *BAAQMD CEQA Air Quality Guidelines*. May.

Figure 1 – Aerial View Showing Existing and Proposed Project



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

Dublin is located in the San Ramon Valley, where wind speeds rank as some of the lowest in the Bay Area. Air temperatures are cooler in the winter and warmer in the summer because these valleys are further from the moderating effect of large water bodies, and because the Coast Range blocks marine air flow. In the Diablo Valley during the winter, Concord records daily maximum temperatures in the mid 50's. During the summer, average daily maximum temperatures are in the high 80's to 90 degrees. Average minimum temperatures in winter are in the low-to-mid 40's. Temperatures in the San Ramon Valley would be similar to Concord's. Shielded by the Coast Range to the west, rainfall amounts in the Diablo Valley are relatively low. For example, Martinez, in the north, reports an annual average of 18.5 inches, while Walnut Creek reports 19 inches. Rainfall in the San Ramon Valley is expected to be similar because of the similar orientation of the terrain.

Pollution potential is relatively high in these valleys. In the winter, light winds at night coupled with a surface-based inversion and terrain blocking to the east and west does not allow much dispersion of pollutants. San Ramon Valley, with its very narrow width, could easily have high pollution buildups from emissions contributed by the major freeway in its center, and by emissions from fireplaces and wood stoves. In the summer months, ozone can be transported into the valleys from both the Central Valley and the central Bay Area.

National and State Ambient Air Quality Standards

The ambient air quality in a given area depends on the quantities of pollutants emitted within the area, transport of pollutants to and from surrounding areas, local and regional meteorological conditions, as well as the surrounding topography of the air basin. Air quality is described by the concentration of various pollutants in the atmosphere. Units of concentration are generally expressed in parts per million (ppm) or micrograms per cubic meter ($\mu\text{g}/\text{m}^3$).

As required by the Federal Clean Air Act, National Ambient Air Quality Standards (NAAQS) have been established for six major air pollutants: carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), particulate matter, including respirable particulate matter (PM_{10}) and fine particulate matter ($PM_{2.5}$), sulfur oxides, and lead. Pursuant to the California Clean Air Act, the State of California has established the California Ambient Air Quality Standards (CAAQS). Relevant State and Federal standards are summarized in Table 1. CAAQS are generally the same or more stringent than NAAQS.

Air Quality Monitoring Data

The significance of a pollutant concentration is determined by comparing the concentration to an appropriate ambient air quality standard. The standards represent the allowable pollutant

concentrations designed to ensure that the public health and welfare are protected, while including a reasonable margin of safety to protect the more sensitive individuals in the population. The San Francisco Bay Area is considered to be one of the cleanest metropolitan areas in the country with respect to air quality. BAAQMD monitors air quality conditions at more than 20 locations throughout the Bay Area. The closest monitoring station to the project site is in Livermore at the 793 Rincon Avenue monitoring station. Summarized air pollutant data for this station is provided in Table 2. This table shows the highest air pollutant concentrations measured at the station over the five year period from 2008 through 2012. Note that BAAQMD discontinued monitoring of carbon monoxide in 2009.

These data show that ozone levels above State or Federal standards are exceeded each year. Over the past 5 years, State ozone standards were exceeded 6 to 9 days annually and Federal standards were exceeded 2 to 3 days. No other ambient air quality standards were exceeded in Livermore.

Ambient Air Quality Status

Areas with air pollutant levels that exceed adopted air quality standards are designated as “nonattainment” areas for the relevant air pollutants. Nonattainment areas are sometimes further classified by degree (marginal, moderate, serious, severe, and extreme for ozone, and moderate and serious for carbon monoxide and PM₁₀) or status (“nonattainment-transitional”). Areas that comply with air quality standards are designated as “attainment” areas for the relevant air pollutants. “Unclassified” areas are those with insufficient air quality monitoring data to support a designation of attainment or nonattainment, but are generally presumed to meet the ambient air quality standard. State Implementation Plans must be prepared by states for areas designated as federal nonattainment areas to demonstrate how the area will come into attainment of the exceeded federal ambient air quality standard. The Bay Area is considered a marginal nonattainment area for ozone under the NAAQS and nonattainment for ozone under the CAAQS (both 1- and 8-hour standards). The Bay Area is also designated as nonattainment for the 24-hour PM_{2.5} standard; however, U.S. Environmental Protection Agency (EPA) has proposed that the Bay Area has met the standard based on the latest 3-year set of monitoring data. The Bay Area is still considered nonattainment for the State annual PM_{2.5} standard and the 24-hour PM₁₀ standard. The region is designated attainment or unclassified for all other ambient air quality standards.

Table 1. Relevant California and National Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards	National Standards
Ozone	8-hour	0.070 ppm (137 µg/m ³)	0.075 ppm (147 µg/m ³)
	1-hour	0.09 ppm (180 µg/m ³)	—
Carbon monoxide	1-hour	20 ppm (23 mg/m ³)	35 ppm (40 mg/m ³)
	8-hour	9.0 ppm (10 mg/m ³)	9 ppm (10 mg/m ³)
Nitrogen dioxide	1-hour	0.18 ppm (339 µg/m ³)	0.100 ppm (188 µg/m ³)
	Annual	0.030 ppm (57 µg/m ³)	0.053 ppm (100 µg/m ³)
Sulfur Dioxide	1-hour	0.25 ppm (655 µg/m ³)	0.075 ppm (196 µg/m ³)
	24-hour	0.04 ppm (105 µg/m ³)	0.14 ppm (365 µg/m ³)
	Annual	—	0.03 ppm (56 µg/m ³)
Particulate Matter (PM ₁₀)	Annual	20 µg/m ³	—
	24-hour	50 µg/m ³	150 µg/m ³
Particulate Matter (PM _{2.5})	Annual	12 µg/m ³	12 µg/m ³
	24-hour	—	35 µg/m ³

Notes: ppm = parts per million mg/m^3 = milligrams per cubic meter $\mu\text{g/m}^3$ = micrograms per cubic meter

Table 2. Highest Measured Air Pollutant Concentrations in Livermore

Pollutant	Average Time	Measured Air Pollutant Levels				
		2008	2009	2010	2011	2012
Ozone (O ₃)	1-Hour	0.141 ppm	0.113 ppm	0.150 ppm	0.115 ppm	0.102 ppm
	8-Hour	0.111 ppm	0.086 ppm	0.098 ppm	0.085 ppm	0.090 ppm
Carbon Monoxide (CO)	8-Hour	1.4 ppm	1.3 ppm	ND	ND	ND
Nitrogen Dioxide (NO ₂)	1-Hour	0.058 ppm	0.052 ppm	0.058 ppm	0.053 ppm	0.057 ppm
	Annual	0.013 ppm	0.012 ppm	0.011 ppm	0.011 ppm	0.011 ppm
Respirable Particulate Matter (PM ₁₀)	24-Hour	46.8 ug/m ³	ND	ND	ND	ND
	Annual	ND	ND	ND	ND	ND
Fine Particulate Matter (PM _{2.5})	24-Hour	52.7 ug/m ³	45.7 ug/m ³	34.7 ug/m ³	23.6 ug/m ³	31.1 ug/m ³
	Annual	10.1 ug/m ³	9.2 ug/m ³	7.6 ug/m ³	7.8 ug/m ³	6.5 ug/m ³

Source: CARB, 2013.

Notes: ppm = parts per million and ug/m³ = micrograms per cubic meter.
 Values reported in bold exceed ambient air quality standard.
 ND = No data.

Sensitive Receptors

There are groups of people more affected by air pollution than others. The California Air Resources Board (CARB) has identified the following persons who are most likely to be affected by air pollution: children under 14, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, elementary schools, and parks. The closest sensitive receptors are future residences that will be located in Dublin, north of the site across Interstate 580. Existing residences are located about 1,000 feet south of the project site.

Toxic Air Contaminants

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

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

CARB has adopted and implemented a number of regulations for stationary and mobile sources to reduce emissions of diesel particulate matter (DPM). Several of these regulatory programs affect medium and heavy duty diesel trucks that represent the bulk of DPM emissions from California highways. These regulations include the solid waste collection vehicle (SWCV) rule, in-use public and utility fleets, and the heavy-duty diesel truck and bus regulations. In 2008, CARB approved a new regulation to reduce emissions of DPM and nitrogen oxides from existing on-road heavy-duty diesel fueled vehicles². The regulation requires affected vehicles to meet specific performance requirements between 2012 and 2023, with all affected diesel vehicles required to have 2010 model-year engines or equivalent by 2023. These requirements are phased in over the compliance period and depend on the model year of the vehicle.

The BAAQMD is the regional agency tasked with managing air quality in the region. At the State level, CARB (a part of the California Environmental Protection Agency) oversees regional air district activities and regulates air quality at the State level. The BAAQMD published the *California Environmental Quality Act (CEQA) Air Quality Guidelines*, which are used in this assessment to evaluate air quality impacts of projects³.

² Available online: <http://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm>. Accessed: April 3, 2012.

³ BAAQMD, 2011, op. cit.

Significance Thresholds

The BAAQMD provides guidance for assessing the impact of projects on air quality. In 2011, BAAQMD issued the *CEQA Air Quality Guidelines*⁴ which provided procedures for analyzing air quality impacts of land use projects, including construction projects, and also includes thresholds of significance to compare impacts against. These thresholds are identified in Table 3. The methodology contained in the BAAQMD CEQA Air Quality Guidelines were generally followed. The exception is that the South Coast Air Quality Management District, along with a collaboration of other air districts, developed the California Emissions Estimator Model (CalEEMod) in late 2011 that superseded the URBEMIS2007 model recommended in the BAAQMD CEQA Air Quality Guidelines⁵. In addition, CARB updated their on-road motor vehicle emission factor model to EMFAC2011. This model provides the best estimate of motor vehicle, including truck, emission factors.

BAAQMD's adoption of significance thresholds contained in the 2011 CEQA Air Quality Guidelines was called into question by an order issued March 5, 2012, in *California Building Industry Association (CBIA) v. BAAQMD* (Alameda Superior Court Case No. RGI0548693). The order requires BAAQMD to set aside its approval of the thresholds until it has conducted environmental review under CEQA. The ruling made in the case concerned the environmental impacts of adopting the thresholds and how the thresholds would indirectly affect land use development patterns. In August 2013, the Appellate Court struck down the lower court's order to set aside the thresholds. However, this litigation remains pending as the California Supreme Court recently accepted a portion of CBIA's petition to review the appellate court's decision to uphold BAAQMD's adoption of the thresholds. The specific portion of the argument to be considered is in regard to whether CEQA requires consideration of the effects of the environment on a project (as contrasted to the effects of a proposed project on the environment). Therefore, the significance thresholds contained in the 2011 CEQA Air Quality Guidelines are applied to this project.

⁴ BAAQMD. 2011, op. cit.

⁵ BAAQMD has recommend use of the latest version of CalEEMod in August 2013. See <http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES.aspx>, accessed April 3, 2014.

Table 3. Air Quality Significance Thresholds

Pollutant	Construction Thresholds	Operational Thresholds	
	Average Daily Emissions (lbs./day)	Average Daily Emissions (lbs./day)	Annual Average Emissions (tons/year)
Criteria Air Pollutants			
ROG	54	54	10
NO _x	54	54	10
PM ₁₀	82	82	15
PM _{2.5}	54	54	10
CO	Not Applicable	California Ambient Air Quality Standards, which are 9.0 ppm (8-hour average) or 20.0 ppm (1-hour average)	
Fugitive Dust	Construction Dust Ordinance or other Best Management Practices	Not Applicable	
Health Risks and Hazards for New Sources			
Excess Cancer Risk	10 per one million	10 per one million	
Chronic or Acute Hazard Index	1.0	1.0	
Incremental annual average PM _{2.5}	0.3 µg/m ³	0.3 µg/m ³	
Health Risks and Hazards for Sensitive Receptors (Cumulative from all sources within 1,000 foot zone of influence) and Cumulative Thresholds for New Sources			
Excess Cancer Risk	100 per one million		
Chronic Hazard Index	10.0		
Annual Average PM _{2.5}	0.8 µg/m ³		
Greenhouse Gas Emissions			
GHG Annual Emissions	Compliance with a Qualified GHG Reduction Strategy or 1,100 metric tons or 4.6 metric tons per capita		
Note: ROG = reactive organic gases, NO _x = nitrogen oxides, PM ₁₀ = course particulate matter or particulates with an aerodynamic diameter of 10 micrometers (µm) or less, PM _{2.5} = fine particulate matter or particulates with an aerodynamic diameter of 2.5µm or less; and GHG = greenhouse gas. Dwelling units are du and 1,000 square feet are ksf.			

BAAQMD, 2011. *BAAQMD CEQA Air Quality Guidelines*. May.

Impact 1: 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)?

The Bay Area is considered a non-attainment area for ground-level ozone and PM_{2.5} under both the Federal Clean Air Act and the California Clean Air Act. The area is also considered non-attainment for PM₁₀ under the California Clean Air Act, but not the Federal act. The area has attained both State and Federal ambient air quality standards for carbon monoxide.

The California Emissions Estimator Model (CalEEMod) Version 2013.2.2 was used to predict emissions from construction and operation of the site assuming full build out of the project. The project land use types and size, and trip generation rate were input to CalEEMod.

Construction Fugitive Dust

During grading and construction activities, dust would be generated. Most of the dust would result during grading activities. The amount of dust generated would be highly variable and is dependent on the size of the area disturbed at any given time, amount of activity, soil conditions, and meteorological conditions. Typical winds during late spring through summer are from the south or southwest. Nearby receptors could be adversely affected by dust generated during construction activities. The BAAQMD CEQA Air Quality Guidelines consider these impacts to be less than significant if best management practices are employed to reduce these emissions. This impact is considered significant unless appropriate measures are implemented to reduce fugitive dust generated by the project. *Implementation of Mitigation Measure AQ-1 would reduce this impact to a level of less-than-significant.*

Construction Emissions Modeling Methodology

CalEEMod provided average daily and annual emissions for each phase of construction. CalEEMod provides emission estimates for both on-site and off-site construction activities. On-site activities are primarily made up of construction equipment emissions, while off-site activity includes worker and vendor traffic. A construction build-out scenario, including anticipated equipment to be used, was provided by the project applicant. *Attachment 1* includes the CalEEMod output for construction and operational emissions. Refined emissions modeling of PM_{2.5} exhaust from on-site activities was conducted as part of the construction health risk assessment addressed later in this report.

Land Use Descriptions

The land uses input to CalEEMod included 430,000 square feet (s.f.) “General Office Building”, 700-space “Unenclosed Parking with Elevator”, and 900-space “Unenclosed Parking with Elevator”. The project size entered was 6.9 acres for work on the BART property (office building and parking structure) and 2 acres for the Stoneridge Plaza site (parking structure).

Schedule, Phases and Equipment

The modeling scenario assumes that the project would be built out over a period of approximately 16 months beginning in early summer of 2015. Equipment type, quantity, number of days, and hours per day were input to the CalEEMod model. The applicant provided the phased construction schedule that was input to CalEEMod.

Construction Traffic

CalEEMod construction traffic defaults were used. In addition, vendor truck trips were added to reflect the import of 3,325 cubic yards of cement and 2,667 cubic yards of asphalt anticipated.

Construction Period Emissions

Table 4 shows estimated average daily construction emissions of ROG, NO_x, PM₁₀ exhaust, and PM_{2.5} exhaust during construction of both sites. As indicated in Table 4, predicted project emissions would not exceed the BAAQMD recommended significance thresholds.

Table 4. Construction Period Emissions, Average Daily Emissions (pounds per day)

Scenario	ROG	NO _x	PM ₁₀ Exhaust	PM _{2.5} Exhaust
2014 Construction emissions (tons)	0.33 tons	2.60 tons	0.13 tons	0.12 tons
2015 Construction emissions (tons)	8.24 tons	5.88 tons	0.27 tons	0.25 tons
Average daily emissions (pounds) ¹	51.0 lbs.	50.5 lbs.	2.4 lbs.	2.2 lbs.
BAAQMD Thresholds (pounds per day)	54 lbs.	54 lbs.	82 lbs.	54 lbs.
Exceed Threshold?	No	No	No	No
Notes: ¹ Assumes 336 workdays.				

Operational Period Emissions Modeling Methodology

Operational air emissions from the project would be generated primarily from autos driven by employees and delivery trucks. Evaporative emissions from architectural coatings and maintenance products are other typical emissions from commercial uses. CalEEMod was used to predict emissions from operation of the site assuming full build out of the proposed expansion. The project land use types and size, and trip generation rate were input to CalEEMod. Adjustments to the model are described below. Model output worksheets are included in *Attachment 1*.

Year of Analysis:

Emissions associated with vehicle travel depend on the year of analysis because emission control technology requirements are phased-in over time. Therefore, the earlier the year analyzed in the model, the higher the emission rates CalEEMod uses. The earliest year the project could possibly be constructed and begin operating would be 2017. Use of this date is considered conservative, as emissions associated with build-out later than 2017 would be lower.

Trip Generation Rates:

CalEEMod allows the user to enter specific trip generation rates. Hexagon Transportation Consultants provided trip generation rates for the project by land use type, which were entered

into the model. Hexagon also provided specific transit reductions of 3 percent for the proposed for the project, which were input to the model. The resulting daily trip rate was 8.97 trips per thousand square feet of office uses.

Trip Characteristics

The default trip lengths and trip types specified by CalEEMod were used.

Project Annual and Daily Emissions

Table 5 reports the predicted 2017 annual emissions (in tons per year) and average daily operational emissions (in pounds per day). As shown in Table 5, average daily and annual emissions of ROG, NO_x, PM₁₀ or PM_{2.5} emissions associated with operation would not exceed the BAAQMD significance thresholds.

Table 5. Air Pollutant Emissions from Operation of the Project

Scenario	ROG	NO_x	PM₁₀	PM_{2.5}
2017 Annual	6.57 tons	4.61 tons	2.68 tons	0.78 tons
<i>Annual Emission Thresholds</i>	<i>10</i>	<i>10</i>	<i>15</i>	<i>10</i>
Exceed Threshold?	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>
2017 Average Daily Emissions	36.0 pounds	25.3 pounds	14.7 pounds	4.3 pounds
<i>Daily Emission Thresholds</i>	<i>54</i>	<i>54</i>	<i>82</i>	<i>54</i>
Exceed Threshold?	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>

Mitigation Measure AQ-1: Include basic measures to control dust and exhaust during construction.

During any construction ground disturbance, implement measures to control dust and exhaust. Implementation of the measures recommended by BAAQMD and listed below would reduce the air quality impacts associated with grading and new construction to a less than significant. The contractors shall implement the following Best Management Practices that are required of all construction projects:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
4. All vehicle speeds on unpaved roads shall be limited to 15 mph.

5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
8. Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

Impact 2: Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

As discussed under Impact 1, the project would not have operational ROG and NO_x emissions that exceed the significance thresholds adopted by BAAQMD. Therefore, the project would not contribute substantially to existing or projected violations of those standards. Carbon monoxide emissions from traffic generated by the project would be the pollutant of greatest concern at the local level. Congested intersections with a large volume of traffic have the greatest potential to cause high-localized concentrations of carbon monoxide. Air pollutant monitoring data indicate that carbon monoxide levels have been at healthy levels (i.e., below State and Federal standards) in the Bay Area since the early 1990s. As a result, the region has been designated as attainment for the standard. There is an ambient air quality monitoring station in Livermore that measures carbon monoxide concentrations. The highest measured level over any 8-hour averaging period during the last 3 years is less than 2.0 parts per million (ppm), compared to the ambient air quality standard of 9.0 ppm. The roadways affected by the proposed project have relatively low traffic volumes compared to the busier intersections in the Bay Area. BAAQMD screening guidance indicates that projects would have a less than significant impact to carbon monoxide levels if project traffic projections indicate traffic levels would not increase at any affected intersection to more than 44,000 vehicles per hour. The intersections affected by the proposed project have much lower traffic volumes (less than 10,000 vehicles per hour). Therefore, the change in traffic caused by the proposed project would be minimal and the project would not cause or contribute to a violation of an ambient air quality standard. As a result, the project would have a *less-than-significant* impact.

Impact 3: Expose sensitive receptors to substantial pollutant concentrations?

Project impacts related to increased health risk can occur either by introducing a new sensitive receptor, such as a residential use, in proximity to an existing source of TACs or by introducing a

new source of TACs with the potential to adversely affect existing sensitive receptors in the project vicinity. The BAAQMD recommends using a 1,000-foot screening radius around a project site for purposes of identifying community health risk from siting a new sensitive receptor or a new source of TACs. The proposed project would not introduce new sensitive receptors (residences) to the project site. Typical operation of the project would not expose sensitive receptors to TAC emissions. However, construction activities would temporarily have TAC emissions that could affect sensitive receptors in the project vicinity.

Construction Period

Emissions from construction of the proposed project would expose nearby sensitive receptors (i.e., residences) to elevated levels of TACs. Construction equipment and trucks fueled by diesel emit DPM, which is a TAC. The closest existing residences to the project site are located north of the project site, in Dublin across Interstate 580 (see Figure 2). Residences are also located south of the project site along Stoneridge Mall Road. A health risk assessment of the project construction activities was conducted that evaluated potential health effects at nearby sensitive receptors from construction emissions of DPM. A dispersion model was used to predict the off-site concentrations resulting from project construction so that lifetime cancer risks could be predicted. Figure 2 shows the project site and sensitive receptor locations (residences) used in the air quality dispersion modeling analysis where potential health impacts were evaluated.

On-Site Construction TAC Emissions

This refined health risk assessment focused on modeling on-site construction activity using construction fleet information included in the project design. Construction period emissions were modeled using the California Emissions Estimator Model, Version 2013.2.2 (CalEEMod) along with projected construction activity. The number and types of construction equipment and diesel vehicles, along with the anticipated length of their use for different phases of construction, were based on the provided site-specific construction activity schedule. Construction of the project is expected to occur over about a 16-month period beginning in June of 2015.

The CalEEMod model provided total annual PM_{2.5} exhaust emissions (assumed to be DPM) for the off-road construction equipment and for exhaust emissions from on-road vehicles (haul trucks, vendor trucks, and worker vehicles), with total emissions of 0.3278 tons (656 pounds) over the construction period. The on-road emissions are the result of haul truck travel during demolition, grading, and construction activities, and from worker travel and vendor deliveries during building construction. A trip length of 0.3 miles was used to represent vehicle travel while at or near the construction site. It was assumed that these emissions from on-road vehicles traveling at or near the site would occur at the construction site. Fugitive PM_{2.5} dust emissions were calculated by CalEEMod as 0.0103 tons (21 pounds) over the entire construction period. The project health risk calculations are provided in *Attachment 2*.

Dispersion Modeling

The U.S. EPA ISCST3 dispersion model was used to predict concentrations of DPM at existing sensitive receptors in the vicinity of the project site. The ISCST3 modeling utilized area sources

to represent the on-site construction emissions in different construction areas of the project site. Two area sources were used to model DPM exhaust emissions and two area sources were used for fugitive PM_{2.5} dust emissions. Emissions were distributed evenly across the each of the area sources. These areas are shown on Figure 2. To represent the construction equipment exhaust emissions, an emission release height of six meters (20 feet) was used for the area sources. The elevated source height reflects the height of the equipment exhaust pipes and buoyancy of the exhaust plume. For modeling fugitive PM_{2.5} emissions, a near ground level release height of two meters (6.6 feet) was used for the area sources. Emissions from truck travel at the project site were included in the area sources. Emissions were modeled as occurring daily between 7 am - 4 pm.

A five-year set of hourly meteorological data (2001 - 2005) for Pleasanton obtained from BAAQMD was used in the modeling. Annual DPM concentrations from construction activities were predicted for 2015 and 2016, with the annual average concentrations based on the five years of meteorological data. DPM concentrations were calculated in the nearest residential areas using receptors with a height of 1.5 meters (4.9 feet).

Cancer Risk and Hazards

The maximum-modeled annual DPM concentration occurred in the southeast corner of the residential area north of I-580 north of the project site. The location of this receptor is identified on Figure 2. Increased cancer risks were calculated using the modeled annual concentrations and BAAQMD recommended risk assessment methods for a child exposure (3rd trimester through 2 years of age), student exposure (9 years), and for an adult exposure⁶. Since the modeling was conducted under the conservative assumption that emissions occurred for a full year during each construction year, the default BAAQMD exposure period of 350 days per year was used⁷.

Results of this assessment indicate that for project construction the incremental child cancer risk at the maximally exposed individual (MEI) receptor would be 3.6 in one million and the adult incremental cancer risk would be 0.2 in one million. The increased cancer risk for both the child and adult exposures would be lower than the BAAQMD significance threshold of a cancer risk of 10 in one million and would not be considered a significant impact.

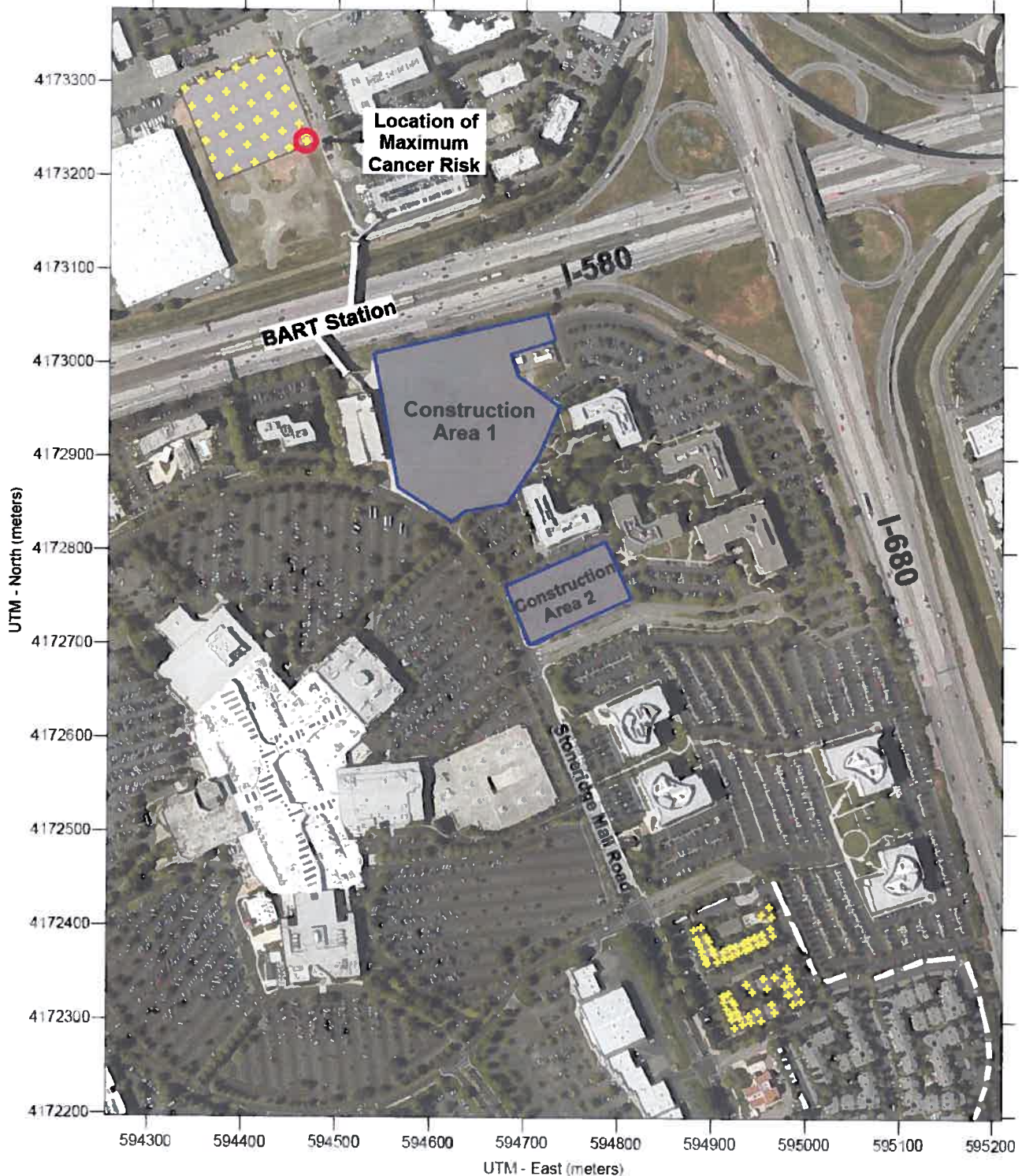
Potential non-cancer health effects due to chronic exposure to DPM were also evaluated. The chronic inhalation reference exposure level (REL) for DPM is 5 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). The maximum predicted annual DPM concentration was $0.027 \mu\text{g}/\text{m}^3$, which is much lower than the REL. The Hazard Index (HI), which is the ratio of the annual DPM concentration to the REL, is 0.005. This HI is much lower than the BAAQMD significance criterion of a HI greater than 1.0. The modeled maximum annual PM_{2.5} concentration was $0.028 \mu\text{g}/\text{m}^3$, occurring at the same location as the maximum cancer risk. This PM_{2.5} concentration is below the BAAQMD threshold of $0.3 \mu\text{g}/\text{m}^3$ used to judge the significance of impacts for PM_{2.5}.

⁶ Bay Area Air Quality Management District (BAAQMD), 2012, *Recommended Methods for Screening and Modeling Local Risks and Hazards*, May.

⁷ Bay Area Air Quality Management District (BAAQMD), 2010a, *Air Toxics NSR Program Health Risk Screening Analysis Guidelines*, January.

Results indicate that excess cancer risks, annual PM_{2.5} concentrations, and Hazard Index are below the significance thresholds. As a result, the project would have a *less-than-significant* impact.

Figure 2 – Project Site Construction Areas and Off-Site Residential Receptors



Attachment 1: CalEEMod Output for Construction and Operational Emissions

Stoneridge Corporate Plaza Expansion Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	430.00	1000sqft	6.90	430,000.00	0
Unenclosed Parking with Elevator	700.00	Space	0.00	280,000.00	0
Unenclosed Parking with Elevator	900.00	Space	2.00	360,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	64
Climate Zone	4			Operational Year	2017

Utility Company Pacific Gas & Electric Company

CO2 Intensity (lb/MWhr)	349	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006
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1.3 User Entered Comments & Non-Default Data

Project Characteristics - Using PG&E CPUC forecasted emission rate for 2018

Land Use - From Traffic Report. 700-space parking structure included in 6.9-acre site

Construction Phase - Based on provided construction schedule

Off-road Equipment - Based on Construction list provided

Off-road Equipment - Based on Construction list provided

Off-road Equipment - Based on provided construction list

Off-road Equipment - Based on provided construction list

Off-road Equipment - Based on construction list

Off-road Equipment - Based on Construction list provided

Off-road Equipment - Based on provided construction list

Off-road Equipment - Based on provided construction list

Trips and VMT - No export haul trips, but simulating 100 miles of water truck travel during grading = 5 trips (at 20 mi) * 55 days Cement trucks entered at vendor trip lengths

Demolition - Based on construction list provided

Grading - Entered amount of material moved, but not exported

Architectural Coating - Reduced VOC Paint content per BAAQMD Regulations

Vehicle Trips - Entered trip generation rate from traffic with 3% transit reduction and applied to weekends

Construction Off-road Equipment Mitigation - Tier 2 and BMPs for fugitive dust

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	150.00
tblConstructionPhase	NumDays	20.00	80.00
tblConstructionPhase	NumDays	230.00	250.00
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	20.00	25.00
tblConstructionPhase	NumDays	10.00	20.00
tblConstructionPhase	PhaseEndDate	1/16/2017	6/13/2016
tblConstructionPhase	PhaseEndDate	9/30/2016	9/26/2016

tblConstructionPhase	PhaseEndDate	8/4/2015	8/21/2015
tblConstructionPhase	PhaseEndDate	7/18/2016	6/6/2016
tblConstructionPhase	PhaseEndDate	7/22/2015	7/7/2015
tblConstructionPhase	PhaseEndDate	10/30/2015	10/16/2015
tblConstructionPhase	PhaseStartDate	9/27/2016	2/23/2016
tblConstructionPhase	PhaseStartDate	10/17/2015	10/13/2015
tblConstructionPhase	PhaseStartDate	7/8/2015	7/27/2015
tblConstructionPhase	PhaseStartDate	6/14/2016	5/3/2016
tblConstructionPhase	PhaseStartDate	6/25/2015	6/10/2015
tblConstructionPhase	PhaseStartDate	8/22/2015	8/10/2015
tblGrading	AcresOfGrading	9.00	10.00
tblGrading	MaterialExported	0.00	14,800.00
tblLandUse	LotAcreage	9.87	6.90
tblLandUse	LotAcreage	6.30	0.00
tblLandUse	LotAcreage	8.10	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00

tbloffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tbloffRoadEquipment	UsageHours	6.00	8.00
tbloffRoadEquipment	UsageHours	8.00	5.30
tbloffRoadEquipment	UsageHours	7.00	6.40
tbloffRoadEquipment	UsageHours	8.00	5.10
tbloffRoadEquipment	UsageHours	8.00	4.80
tbloffRoadEquipment	UsageHours	8.00	3.60
tbloffRoadEquipment	UsageHours	8.00	4.80
tbloffRoadEquipment	UsageHours	8.00	4.80
tbloffRoadEquipment	UsageHours	8.00	4.80
tbloffRoadEquipment	UsageHours	8.00	5.30
tbloffRoadEquipment	UsageHours	7.00	8.00
tbloffRoadEquipment	UsageHours	8.00	1.30
tbIProjectCharacteristics	CO2IntensityFactor	641.35	349
tbIProjectCharacteristics	OperationalYear	2014	2017
tbITripsAndVMT	HaulingTripLength	20.00	7.30
tbITripsAndVMT	HaulingTripNumber	1,463.00	275.00
tbITripsAndVMT	HaulingTripNumber	0.00	6,650.00
tbIVehicleTrips	ST_TR	2.37	1.93
tbIVehicleTrips	SU_TR	0.98	0.80
tbIVehicleTrips	WD_TR	11.01	8.97

2.0 Emissions Summary

Attachment 1: CalEEMod Modeling

2.1 Overall Construction**Unmitigated Construction**

Year	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr										MT/yr						
2015	0.3277	2.5951	2.8140	4.3400e-003	0.1969	0.1291	0.3259	0.0490	0.1191	0.1681	0.0000	384.7103	384.7103	0.0459	0.0000	385.6733
2016	8.2415	5.8801	7.5680	0.0127	0.5135	0.2654	0.7790	0.1389	0.2466	0.3855	0.0000	1,086.8977	1,086.8977	0.1096	0.0000	1,089.1987
Total	8.5692	8.4751	10.3820	0.0170	0.7104	0.3945	1.1049	0.1879	0.3657	0.5536	0.0000	1,471.6075	1,471.6080	0.1554	0.0000	1,474.8720

Mitigated Construction

Year	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr										MT/yr						
2015	0.3277	2.5951	2.8140	4.3400e-003	0.1713	0.1291	0.3004	0.0453	0.1191	0.1644	0.0000	384.7101	384.7101	0.0459	0.0000	385.6731
2016	8.2415	5.8801	7.5680	0.0127	0.5135	0.2654	0.7790	0.1389	0.2466	0.3855	0.0000	1,086.8973	1,086.8973	0.1096	0.0000	1,089.1984
Total	8.5692	8.4751	10.3820	0.0170	0.6848	0.3945	1.0794	0.1842	0.3657	0.5499	0.0000	1,471.6075	1,471.6075	0.1554	0.0000	1,474.8715

Year	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr										MT/yr						
Percent Reduction	0.00	0.00	0.00	0.00	3.60	0.00	2.31	1.96	0.00	0.67	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	4.7387	1.8000e-004	0.0190	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0363	0.0363	1.0000e-004	0.0000	0.0384
Energy	0.0399	0.3630	0.3049	2.1800e-003		0.0276	0.0276		0.0276	0.0276	0.0000	2.0225159	2.0225159	0.1428	0.0352	2,036.4335
Mobile	1.7916	4.2438	18.3995	0.0372	2.5985	0.0550	2.6535	0.6974	0.0506	0.7480	0.0000	2,866.6989	2,866.6989	0.1190	0.0000	2,869.1969
Waste						0.0000	0.0000		0.0000	0.0000	81.1761	0.0000	81.1761	4.7974	0.0000	181.9208
Water						0.0000	0.0000		0.0000	0.0000	24.2463	91.4178	115.6641	2.4979	0.0604	186.8363
Total	6.5702	4.6070	18.7234	0.0394	2.5985	0.0827	2.6812	0.6974	0.0783	0.7766	105.4224	4,980.6688	5,086.0912	7.5572	0.0956	5,274.4260

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	4.7387	1.8000e-004	0.0190	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0363	0.0363	1.0000e-004	0.0000	0.0384
Energy	0.0399	0.3630	0.3049	2.1800e-003		0.0276	0.0276		0.0276	0.0276	0.0000	2,022.5159	2,022.5159	0.1428	0.0352	2,036.4335
Mobile	1.7916	4.2438	18.3995	0.0372	2.5985	0.0550	2.6535	0.6974	0.0506	0.7480	0.0000	2,866.6989	2,866.6989	0.1190	0.0000	2,869.1969
Waste						0.0000	0.0000		0.0000	0.0000	81.1761	0.0000	81.1761	4.7974	0.0000	181.9208
Water						0.0000	0.0000		0.0000	0.0000	24.2463	91.4178	115.6641	2.4975	0.0603	186.7976
Total	6.5702	4.6070	18.7234	0.0394	2.5985	0.0827	2.6812	0.6974	0.0783	0.7756	105.4224	4,980.6688	5,086.0912	7.5567	0.0955	5,274.3873

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	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	0.01	0.09	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	6/4/2015	6/24/2015	5	15	
2	Site Preparation	Site Preparation	6/10/2015	7/7/2015	5	20	
3	Grading	Grading	7/27/2015	8/21/2015	5	20	
4	Trenching	Trenching	8/10/2015	10/16/2015	5	50	
5	Building Construction	Building Construction	10/13/2015	9/26/2016	5	250	
6	Interior Construction	Architectural Coating	2/23/2016	6/13/2016	5	80	
7	Paving	Paving	5/3/2016	6/6/2016	5	25	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,605,000; Non-Residential Outdoor: 535,000 (Architectural Coating -- sqft)

Off Road Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	5.30	81	0.73
Demolition	Excavators	1	8.00	162	0.38
Demolition	Rubber Tired Dozers	1	5.30	255	0.40
Site Preparation	Rubber Tired Dozers	0	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	5.10	162	0.38
Grading	Graders	2	3.60	174	0.41
Grading	Rubber Tired Dozers	0	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Trenching	Trenchers	2	8.00	80	0.50
Building Construction	Cranes	2	6.40	226	0.29
Building Construction	Forklifts	2	4.80	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Welders	4	1.30	46	0.45
Interior Construction	Aerial Lifts	4	7.50	62	0.31
Interior Construction	Air Compressors	2	8.00	78	0.48
Paving	Pavers	2	4.80	125	0.42
Paving	Paving Equipment	3	4.80	130	0.36
Paving	Rollers	2	4.80	80	0.38
Paving	Tractors/Loaders/Backhoes	4	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	3	8.00	0.00	247.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	4	10.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	275.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	2	5.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	12	406.00	175.00	6,650.00	12.40	7.30	7.30	LD_Mix	HDT_Mix	HHDT
Interior Construction	6	81.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	11	28.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2015

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr																
Fugitive Dust					0.0268	0.0000	0.0268	4.0500e-003	0.0000	4.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0130	0.1328	0.0992	1.1000e-004	7.0600e-003	7.0600e-003	7.0600e-003	6.6500e-003	6.6500e-003	6.6500e-003	0.0000	10.6612	10.6612	2.6700e-003	0.0000	10.7173
Total	0.0130	0.1328	0.0992	1.1000e-004	0.0268	7.0600e-003	0.0338	4.0500e-003	6.6500e-003	0.0107	0.0000	10.6612	10.6612	2.6700e-003	0.0000	10.7173

MT/yr

3.2 Demolition - 2015**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	3.3100e-003	0.0429	0.0343	9.0000e-005	2.0800e-003	6.4000e-004	2.7200e-003	5.7000e-004	5.9000e-004	1.1600e-003	0.0000	8.5722	8.5722	7.0000e-005	0.0000	8.5737
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	3.7000e-004	3.5800e-003	1.0000e-005	5.4000e-004	0.0000	5.5000e-004	1.4000e-004	0.0000	1.5000e-004	0.0000	0.5114	0.5114	3.0000e-005	0.0000	0.5121
Total	3.5600e-003	0.0433	0.0379	1.0000e-004	2.6200e-003	6.4000e-004	3.2700e-003	7.1000e-004	5.9000e-004	1.3100e-003	0.0000	9.0837	9.0837	1.0000e-004	0.0000	9.0858

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					5.4200e-003	0.0000	5.4200e-003	8.2000e-004	0.0000	8.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0130	0.1328	0.0992	1.1000e-004	7.0600e-003	7.0600e-003	7.0600e-003	6.6500e-003	6.6500e-003	6.6500e-003	0.0000	10.6612	10.6612	2.6700e-003	0.0000	10.7173
Total	0.0130	0.1328	0.0992	1.1000e-004	5.4200e-003	7.0600e-003	0.0125	8.2000e-004	6.6500e-003	7.4700e-003	0.0000	10.6612	10.6612	2.6700e-003	0.0000	10.7173

3.2 Demolition - 2015**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	3.3100e-003	0.0429	0.0343	9.0000e-005	2.0800e-003	6.4000e-004	2.7200e-003	5.7000e-004	5.9000e-004	1.1600e-003	0.0000	8.5722	8.5722	7.0000e-005	0.0000	8.5737
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	3.7000e-004	3.5800e-003	1.0000e-005	5.4000e-004	0.0000	5.5000e-004	1.4000e-004	0.0000	1.5000e-004	0.0000	0.5114	0.5114	3.0000e-005	0.0000	0.5121
Total	3.5600e-003	0.0433	0.0379	1.0000e-004	2.6200e-003	6.4000e-004	3.2700e-003	7.1000e-004	5.9000e-004	1.3100e-003	0.0000	9.0837	9.0837	1.0000e-004	0.0000	9.0858

3.3 Site Preparation - 2015**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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0144	0.1373	0.0970	1.2000e-004		0.0108	0.0108		9.8900e-003	9.8900e-003	0.0000	11.8837	11.8837	3.5500e-003	0.0000	11.9582
Total	0.0144	0.1373	0.0970	1.2000e-004	0.0000	0.0108	0.0108	0.0000	9.8900e-003	9.8900e-003	0.0000	11.8837	11.8837	3.5500e-003	0.0000	11.9582

3.3 Site Preparation - 2015

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	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	4.2000e-004	6.1000e-004	5.9600e-003	1.0000e-005	9.1000e-004	1.0000e-005	9.2000e-004	2.4000e-004	1.0000e-005	2.5000e-004	0.0000	0.8524	0.8524	5.0000e-005	0.0000	0.8534
Total	4.2000e-004	6.1000e-004	5.9600e-003	1.0000e-005	9.1000e-004	1.0000e-005	9.2000e-004	2.4000e-004	1.0000e-005	2.5000e-004	0.0000	0.8524	0.8524	5.0000e-005	0.0000	0.8534

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0144	0.1373	0.0970	1.2000e-004		0.0108	0.0108		9.8900e-003	9.8900e-003	0.0000	11.8837	11.8837	3.5500e-003	0.0000	11.9582
Total	0.0144	0.1373	0.0970	1.2000e-004	0.0000	0.0108	0.0108	0.0000	9.8900e-003	9.8900e-003	0.0000	11.8837	11.8837	3.5500e-003	0.0000	11.9582

3.3 Site Preparation - 2015

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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	4.2000e-004	6.1000e-004	5.9600e-003	1.0000e-005	9.1000e-004	1.0000e-005	9.2000e-004	2.4000e-004	1.0000e-005	2.5000e-004	0.0000	0.8524	0.8524	5.0000e-005	0.0000	0.8534
Total	4.2000e-004	6.1000e-004	5.9600e-003	1.0000e-005	9.1000e-004	1.0000e-005	9.2000e-004	2.4000e-004	1.0000e-005	2.5000e-004	0.0000	0.8524	0.8524	5.0000e-005	0.0000	0.8534

3.4 Grading - 2015

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr										MT/yr						
Fugitive Dust					5.3000e-003	0.0000	5.3000e-003	5.7000e-004	0.0000	5.7000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0293	0.2971	0.1857	2.5000e-004		0.0193	0.0193		0.0178	0.0178	0.0000	23.6743	23.6743	7.0700e-003	0.0000	23.8227
Total	0.0293	0.2971	0.1857	2.5000e-004	5.3000e-003	0.0193	0.0246	5.7000e-004	0.0178	0.0183	0.0000	23.6743	23.6743	7.0700e-003	0.0000	23.8227

3.4 Grading - 2015**Unmitigated Construction Off-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr										MT/yr						
Hauling	3.6800e-003	0.0478	0.0382	1.0000e-004	2.3200e-003	7.1000e-004	3.0300e-003	6.4000e-004	6.5000e-004	1.2900e-003	0.0000	9.5440	9.5440	8.0000e-005	0.0000	9.5457
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.5000e-004	1.2300e-003	0.0119	2.0000e-005	1.8100e-003	2.0000e-005	1.8300e-003	4.8000e-004	1.0000e-005	5.0000e-004	0.0000	1.7048	1.7048	1.0000e-004	0.0000	1.7068
Total	4.5300e-003	0.0490	0.0501	1.2000e-004	4.1300e-003	7.3000e-004	4.8600e-003	1.1200e-003	6.6000e-004	1.7900e-003	0.0000	11.2487	11.2487	1.8000e-004	0.0000	11.2525

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr										MT/yr						
Fugitive Dust					1.0700e-003	0.0000	1.0700e-003	1.2000e-004	0.0000	1.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0293	0.2971	0.1857	2.5000e-004		0.0193	0.0193		0.0178	0.0178	0.0000	23.6743	23.6743	7.0700e-003	0.0000	23.8227
Total	0.0293	0.2971	0.1857	2.5000e-004	1.0700e-003	0.0193	0.0204	1.2000e-004	0.0178	0.0179	0.0000	23.6743	23.6743	7.0700e-003	0.0000	23.8227

3.4 Grading - 2015**Mitigated Construction Off-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Hauling	3.6800e-003	0.0478	0.0382	1.0000e-004	2.3200e-003	7.1000e-004	3.0300e-003	6.4000e-004	6.5000e-004	1.2900e-003	0.0000	9.5440	9.5440	8.0000e-005	0.0000	9.5457
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.5000e-004	1.2300e-003	0.0119	2.0000e-005	1.8100e-003	2.0000e-005	1.8300e-003	4.8000e-004	1.0000e-005	5.0000e-004	0.0000	1.7048	1.7048	1.0000e-004	0.0000	1.7068
Total	4.5300e-003	0.0490	0.0501	1.2000e-004	4.1300e-003	7.3000e-004	4.8600e-003	1.1200e-003	6.6000e-004	1.7900e-003	0.0000	11.2487	11.2487	1.8000e-004	0.0000	11.2525

3.5 Trenching - 2015**Unmitigated Construction On-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Off-Road	0.0288	0.2532	0.1416	1.7000e-004		0.0198	0.0198		0.0182	0.0182	0.0000	16.4927	16.4927	4.9200e-003	0.0000	16.5961
Total	0.0288	0.2532	0.1416	1.7000e-004		0.0198	0.0198		0.0182	0.0182	0.0000	16.4927	16.4927	4.9200e-003	0.0000	16.5961

3.5 Trenching - 2015**Unmitigated Construction Off-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	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	5.3000e-004	7.7000e-004	7.4500e-003	1.0000e-005	1.1300e-003	1.0000e-005	1.1400e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	1.0655	1.0655	6.0000e-005	0.0000	1.0668
Total	5.3000e-004	7.7000e-004	7.4500e-003	1.0000e-005	1.1300e-003	1.0000e-005	1.1400e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	1.0655	1.0655	6.0000e-005	0.0000	1.0668

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Off-Road	0.0288	0.2532	0.1416	1.7000e-004		0.0198	0.0198		0.0182	0.0182	0.0000	16.4926	16.4926	4.9200e-003	0.0000	16.5960
Total	0.0288	0.2532	0.1416	1.7000e-004		0.0198	0.0198		0.0182	0.0182	0.0000	16.4926	16.4926	4.9200e-003	0.0000	16.5960

3.5 Trenching - 2015**Mitigated Construction Off-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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	5.3000e-004	7.7000e-004	7.4500e-003	1.0000e-005	1.1300e-003	1.0000e-005	1.1400e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	1.0655	1.0655	6.0000e-005	0.0000	1.0668
Total	5.3000e-004	7.7000e-004	7.4500e-003	1.0000e-005	1.1300e-003	1.0000e-005	1.1400e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	1.0655	1.0655	6.0000e-005	0.0000	1.0668

3.6 Building Construction - 2015**Unmitigated Construction On-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr											MT/yr					
Off-Road	0.0964	0.9142	0.5064	7.2000e-004		0.0588	0.0588		0.0544	0.0544	0.0000	68.0076	68.0076	0.0202	0.0000	68.4319
Total	0.0964	0.9142	0.5064	7.2000e-004		0.0588	0.0588		0.0544	0.0544	0.0000	68.0076	68.0076	0.0202	0.0000	68.4319

3.6 Building Construction - 2015

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr										MT/yr						
Hauling	0.0142	0.1097	0.1763	2.2000e-004	0.0165	1.5000e-003	0.0180	4.2000e-003	1.3800e-003	5.5800e-003	0.0000	20.3400	20.3400	1.9000e-004	0.0000	20.3439
Vendor	0.0725	0.5849	0.8047	1.2100e-003	0.0327	9.4800e-003	0.0421	9.3700e-003	8.7200e-003	0.0181	0.0000	111.0418	111.0418	1.0000e-003	0.0000	111.0628
Worker	0.0489	0.0722	0.7017	1.2700e-003	0.1068	9.5000e-004	0.1078	0.0284	8.7000e-004	0.0293	0.0000	100.3590	100.3590	5.8600e-003	0.0000	100.4820
Total	0.1366	0.7668	1.6827	2.7000e-003	0.1560	0.0119	0.1679	0.0420	0.0110	0.0529	0.0000	231.7407	231.7407	7.0500e-003	0.0000	231.8887

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr										MT/yr						
Off-Road	0.0964	0.9142	0.5064	7.2000e-004		0.0588	0.0588		0.0544	0.0544	0.0000	68.0075	68.0075	0.0202	0.0000	68.4318
Total	0.0964	0.9142	0.5064	7.2000e-004		0.0588	0.0588		0.0544	0.0544	0.0000	68.0075	68.0075	0.0202	0.0000	68.4318

3.6 Building Construction - 2015**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	0.0142	0.1097	0.1763	2.2000e-004	0.0165	1.5000e-003	0.0180	4.2000e-003	1.3800e-003	5.5800e-003	0.0000	20.3400	20.3400	1.9000e-004	0.0000	20.3439
Vendor	0.0725	0.5849	0.8047	1.2100e-003	0.0327	9.4800e-003	0.0421	9.3700e-003	8.7200e-003	0.0181	0.0000	111.0418	111.0418	1.0000e-003	0.0000	111.0628
Worker	0.0499	0.0722	0.7017	1.2700e-003	0.1068	9.5000e-004	0.1078	0.0284	8.7000e-004	0.0293	0.0000	100.3590	100.3590	5.8600e-003	0.0000	100.4820
Total	0.1366	0.7668	1.6827	2.7000e-003	0.1560	0.0119	0.1679	0.0420	0.0110	0.0529	0.0000	231.7407	231.7407	7.0500e-003	0.0000	231.8887

3.6 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	0.3026	2.8979	1.6533	2.4000e-003		0.1834	0.1834		0.1694	0.1694	0.0000	222.7766	222.7766	0.0665	0.0000	224.1732
Total	0.3026	2.8979	1.6533	2.4000e-003		0.1834	0.1834		0.1694	0.1694	0.0000	222.7766	222.7766	0.0665	0.0000	224.1732

3.6 Building Construction - 2016**Unmitigated Construction Off-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Hauling	0.0418	0.3156	0.5493	7.3000e-004	0.0193	3.7300e-003	0.0230	5.2000e-003	3.4300e-003	8.6300e-003	0.0000	66.5431	66.5431	5.5000e-004	0.0000	66.5547
Vendor	0.2139	1.6838	2.4851	4.0000e-003	0.1081	0.0251	0.1332	0.0310	0.0231	0.0541	0.0000	363.3155	363.3155	2.9200e-003	0.0000	363.3768
Worker	0.1478	0.2142	2.0746	4.2100e-003	0.3536	2.9500e-003	0.3565	0.0941	2.7100e-003	0.0968	0.0000	320.8475	320.8475	0.0177	0.0000	321.2187
Total	0.4034	2.2136	5.1090	8.9400e-003	0.4810	0.0318	0.5128	0.1303	0.0292	0.1595	0.0000	750.7061	750.7061	0.0211	0.0000	751.1502

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Off-Road	0.3026	2.8979	1.6533	2.4000e-003		0.1834	0.1834		0.1694	0.1694	0.0000	222.7763	222.7763	0.0665	0.0000	224.1729
Total	0.3026	2.8979	1.6533	2.4000e-003		0.1834	0.1834		0.1694	0.1694	0.0000	222.7763	222.7763	0.0665	0.0000	224.1729

3.6 Building Construction - 2016

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Hauling	0.0418	0.3156	0.5493	7.3000e-004	0.0193	3.7300e-003	0.0230	5.2000e-003	3.4300e-003	8.6300e-003	0.0000	66.5431	66.5431	5.5000e-004	0.0000	66.5547
Vendor	0.2139	1.6838	2.4851	4.0000e-003	0.1081	0.0251	0.1332	0.0310	0.0231	0.0541	0.0000	363.3155	363.3155	2.9200e-003	0.0000	363.3768
Worker	0.1478	0.2142	2.0746	4.2100e-003	0.3536	2.9500e-003	0.3565	0.0941	2.7100e-003	0.0968	0.0000	320.8475	320.8475	0.0177	0.0000	321.2187
Total	0.4034	2.2136	5.1090	8.9400e-003	0.4810	0.0318	0.5128	0.1303	0.0292	0.1595	0.0000	750.7061	750.7061	0.0211	0.0000	751.1502

3.7 Interior Construction - 2016

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Archit. Coating	7.4392					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0477	0.3915	0.3637	5.7000e-004		0.0267	0.0267		0.0262	0.0262	0.0000	50.5852	50.5852	0.0103	0.0000	50.8006
Total	7.4869	0.3915	0.3637	5.7000e-004		0.0267	0.0267		0.0262	0.0262	0.0000	50.5852	50.5852	0.0103	0.0000	50.8006

3.7 Interior Construction - 2016

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr										MT/yr						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0123	0.0178	0.1725	3.5000e-004	0.0294	2.5000e-004	0.0296	7.8200e-003	2.3000e-004	8.0400e-003	0.0000	26.6714	26.6714	1.4700e-003	0.0000	26.7023
Total	0.0123	0.0178	0.1725	3.5000e-004	0.0294	2.5000e-004	0.0296	7.8200e-003	2.3000e-004	8.0400e-003	0.0000	26.6714	26.6714	1.4700e-003	0.0000	26.7023

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr										MT/yr						
Archit. Coating	7.4392					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0477	0.3915	0.3637	5.7000e-004		0.0267	0.0267		0.0262	0.0262	0.0000	50.5852	50.5852	0.0103	0.0000	50.8005
Total	7.4869	0.3915	0.3637	5.7000e-004		0.0267	0.0267		0.0262	0.0262	0.0000	50.5852	50.5852	0.0103	0.0000	50.8005

3.7 Interior Construction - 2016**Mitigated Construction Off-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0123	0.0178	0.1725	3.5000e-004	0.0294	2.5000e-004	0.0296	7.8200e-003	2.3000e-004	8.0400e-003	0.0000	26.6714	26.6714	1.4700e-003	0.0000	26.7023
Total	0.0123	0.0178	0.1725	3.5000e-004	0.0294	2.5000e-004	0.0296	7.8200e-003	2.3000e-004	8.0400e-003	0.0000	26.6714	26.6714	1.4700e-003	0.0000	26.7023

3.8 Paving - 2016**Unmitigated Construction On-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Off-Road	0.0350	0.3574	0.2508	3.5000e-004		0.0233	0.0233		0.0215	0.0215	0.0000	33.2772	33.2772	0.0100	0.0000	33.4880
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0350	0.3574	0.2508	3.5000e-004		0.0233	0.0233		0.0215	0.0215	0.0000	33.2772	33.2772	0.0100	0.0000	33.4880

3.8 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	1.3300e-003	1.9200e-003	0.0186	4.0000e-005	3.1700e-003	3.0000e-005	3.2000e-003	8.4000e-004	2.0000e-005	8.7000e-004	0.0000	2.8812	2.8812	1.6000e-004	0.0000	2.8845
Total	1.3300e-003	1.9200e-003	0.0186	4.0000e-005	3.1700e-003	3.0000e-005	3.2000e-003	8.4000e-004	2.0000e-005	8.7000e-004	0.0000	2.8812	2.8812	1.6000e-004	0.0000	2.8845

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	0.0350	0.3574	0.2508	3.5000e-004		0.0233	0.0233		0.0215	0.0215	0.0000	33.2772	33.2772	0.0100	0.0000	33.4879
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0350	0.3574	0.2508	3.5000e-004		0.0233	0.0233		0.0215	0.0215	0.0000	33.2772	33.2772	0.0100	0.0000	33.4879

3.8 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	1.3300e-003	1.9200e-003	0.0186	4.0000e-005	3.1700e-003	3.0000e-005	3.2000e-003	8.4000e-004	2.0000e-005	8.7000e-004	0.0000	2.8812	2.8812	1.6000e-004	0.0000	2.8845
Total	1.3300e-003	1.9200e-003	0.0186	4.0000e-005	3.1700e-003	3.0000e-005	3.2000e-003	8.4000e-004	2.0000e-005	8.7000e-004	0.0000	2.8812	2.8812	1.6000e-004	0.0000	2.8845

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	1.7916	4.2438	18.3995	0.0372	2.5985	0.0550	2.6535	0.6974	0.0506	0.7480	0.0000	2,866.698 ₉	2,866.698 ₉	0.1190	0.0000	2,869,196 ₉
Unmitigated	1.7916	4.2438	18.3995	0.0372	2.5985	0.0550	2.6535	0.6974	0.0506	0.7480	0.0000	2,866.698 ₉	2,866.698 ₉	0.1190	0.0000	2,869,196 ₉

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated Annual VMT	Mitigated Annual VMT
	Weekday	Saturday	Sunday		
General Office Building	3,857.10	829.90	344.00	6,984,701	6,984,701
Unenclosed Parking with Elevator	0.00	0.00	0.00		
Unenclosed Parking with Elevator	0.00	0.00	0.00		
Total	3,857.10	829.90	344.00	6,984,701	6,984,701

4.3 Trip Type Information

Land Use	Miles					Trip %					Trip Purpose %			
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-C	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
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00						77	19	4
Unenclosed Parking with	9.50	7.30	7.30	0.00	0.00	0.00						0	0	0
Unenclosed Parking with	9.50	7.30	7.30	0.00	0.00	0.00						0	0	0

5.0 Energy Detail

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.546114	0.062902	0.174648	0.122995	0.034055	0.004856	0.015640	0.024397	0.002087	0.003279	0.006673	0.000688	0.001667

Historical Energy Use: N

5.1 Mitigation Measures Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,627.378 3	1,627.378 3	0.1352	0.0280	1,638.891 1
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,627.378 3	1,627.378 3	0.1352	0.0280	1,638.891 1
Natural Gas Mitigated	0.0399	0.3630	0.3049	2.1800e-003		0.0276	0.0276		0.0276	0.0276	0.0000	395.1377	395.1377	7.5700e-003	7.2400e-003	397.5424
Natural Gas Unmitigated	0.0399	0.3630	0.3049	2.1800e-003		0.0276	0.0276		0.0276	0.0276	0.0000	395.1377	395.1377	7.5700e-003	7.2400e-003	397.5424

5.2 Energy by Land Use - Natural Gas

Unmitigated

	Natural Gas 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					
General Office Building	7.4046e+006	0.0399	0.3630	0.3049	2.1800e-003		0.0276	0.0276		0.0276	0.0276	0.0000	395.1377	395.1377	7.5700e-003	7.2400e-003	397.5424
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0399	0.3630	0.3049	2.1800e-003		0.0276	0.0276		0.0276	0.0276	0.0000	395.1377	395.1377	7.5700e-003	7.2400e-003	397.5424

5.2 Energy by Land Use - NaturalGas

Mitigated

Land Use	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																
General Office Building	7.4048e+006	0.0399	0.3630	0.3049	2.1800e-003		0.0276	0.0276		0.0276	0.0276	0.0000	395.1377	395.1377	7.5700e-003	7.2400e-003	397.5424
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0399	0.3630	0.3049	2.1800e-003		0.0276	0.0276		0.0276	0.0276	0.0000	395.1377	395.1377	7.5700e-003	7.2400e-003	397.5424

5.3 Energy by Land Use - Electricity

Unmitigated

Land Use	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr				
General Office Building	8.4753e+006	1,341.6717	0.1115	0.0231	1,351.1633
Unenclosed Parking with Elevator	1.0152e+006	160.7100	0.0134	2.7600e-003	161.8469
Unenclosed Parking with Elevator	789600	124.9966	0.0104	2.1500e-003	125.8809
Total		1,627.3782	0.1352	0.0280	1,638.8911

5.3 Energy by Land Use - Electricity

Mitigated

Land Use	Electricity Use kWh/yr	Total CO2	CH4	N2O	CO2e
MT/yr					
General Office Building	8.4753e+006	1,341,671 7	0.1115	0.0231	1,351,163 3
Unenclosed Parking with Elevator	1.0152e+006	160,7100	0.0134	2.7600e-003	161,8469
Unenclosed Parking with Elevator	789600	124,9966	0.0104	2.1500e-003	125,8809
Total		1,627,378 2	0.1352	0.0280	1,638,891 1

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	4.7387	1.8000e-004	0.0190	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0363	0.0363	1.0000e-004	0.0000	0.0384
Unmitigated	4.7387	1.8000e-004	0.0190	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0363	0.0363	1.0000e-004	0.0000	0.0384

6.2 Area by SubCategory**Unmitigated**

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr										MT/yr						
Architectural Coating	0.5579					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.1789					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.8300e-003	1.8000e-004	0.0190	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0363	0.0363	1.0000e-004	0.0000	0.0384
Total	4.7387	1.8000e-004	0.0190	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0363	0.0363	1.0000e-004	0.0000	0.0384

Mitigated

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr										MT/yr						
Architectural Coating	0.5579					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.1789					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.8300e-003	1.8000e-004	0.0190	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0363	0.0363	1.0000e-004	0.0000	0.0384
Total	4.7387	1.8000e-004	0.0190	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0363	0.0363	1.0000e-004	0.0000	0.0384

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	115.6641	2.4975	0.0603	186.7976
Unmitigated	115.6641	2.4979	0.0604	186.8363

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	76.4255 / 46.8414	115.6641	2.4979	0.0604	186.8363
Unenclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		115.6641	2.4979	0.0604	186.8363

7.2 Water by Land Use

Mitigated

Land Use	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
	Mgal	MT/yr			
General Office Building	76.4255 / 46.8414	115.6641	2.4975	0.0603	186.7976
Unenclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		115.6641	2.4975	0.0603	186.7976

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	81.1761	4.7974	0.0000	181.9208
Unmitigated	81.1761	4.7974	0.0000	181.9208

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	399.9	81.1761	4.7974	0.0000	181.9208
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Total		81.1761	4.7974	0.0000	181.9208

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	399.9	81.1761	4.7974	0.0000	181.9208
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Total		81.1761	4.7974	0.0000	181.9208

9.0 Operational Offroad

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

Attachment 2: Construction Health Risk Analysis

Stoneridge Corporate Plaza, Pleasanton, CA

DPM Construction Emissions and Modeling Emission Rates - Unmitigated

Construction Year	Activity	DPM (ton/year)	Area Source	DPM Emissions			Modeled Area (m ²)	DPM Emission Rate (g/s/m ²)
				(lb/yr)	(lb/hr)	(g/s)		
2015	Const - Area 1	0.0851	CON1_DPM	170.2	0.05181	6.53E-03	29,346	2.22E-07
	Const - Area 2	0.0230	CON2_DPM	46.0	0.01400	1.76E-03	7,930	2.22E-07
		0.1081					37,276	
2016	Const - Area 1	0.1730	CON1_DPM	345.9	0.10530	1.33E-02	29,346	4.52E-07
	Const - Area 2	0.0467	CON2_DPM	93.5	0.02846	3.59E-03	7,930	4.52E-07
		0.2197					37,276	
Total		0.3278		656	0.1996	0.0251		

Notes:

Emissions assumed to be evenly distributed over each construction areas

hr/day = 9 (7am - 4pm)
 days/yr = 365
 hours/year = 3285

PM2.5 Fugitive Dust Construction Emissions for Modeling - Unmitigated

Construction Year	Activity	Area Source	PM2.5 Emissions				Modeled Area (m ²)	DPM Emission Rate g/s/m ²
			(ton/year)	(lb/yr)	(lb/hr)	(g/s)		
2014	Const - Area 1	CON_FUG	0.0047	9.5	0.00289	3.64E-04	29,346	1.24E-08
	Const - Area 2	CON_FUG	0.0013	2.6	0.00078	9.82E-05	7,930	1.24E-08
			0.0060				37,276	
2015	Const - Area 1	CON_FUG	0.0034	6.8	0.00207	2.60E-04	29,346	8.87E-09
	Const - Area 2	CON_FUG	0.0009	1.8	0.00056	7.03E-05	7,930	8.87E-09
			0.0043				37,276	
Total			0.0103	20.7	0.0063	0.0008		

Notes:

Emissions assumed to be evenly distributed over each construction areas

hr/day = 9 (7am - 4pm)
 days/yr = 365
 hours/year = 3285

Stoneridge Corporate Plaza, Pleasanton, CA

Construction Health Impact Summary -

Construction Year						Maximum Annual PM2.5 Concentration (µg/m³)
	Maximum Concentrations		Cancer Risk (per million)		Hazard Index (-)	
	Exhaust PM2.5/DPM (µg/m³)	Fugitive PM2.5 (µg/m³)				
	Child	Adult				
2015	0.0134	0.0008	1.2	0.1	0.003	0.014
2016	0.0273	0.0006	2.4	0.1	0.005	0.028
Total	-	-	3.6	0.2	-	-
Maximum Annual	0.0273	0.0008	-	-	0.005	0.028

Exposure Year	Exposure Duration (years)	Child - Exposure Information			Child Cancer Risk (per million)	Adult - Exposure Information			Adult Cancer Risk (per million)	Fugitive PM2.5	Total PM2.5
		DPM Conc (ug/m3)		Adjust Factor		Modeled		Exposure Adjust Factor			
						DPM Conc (ug/m3)					
						Year	Annual				
1	1	2014	0.0134	10	1.17	2014	0.0134	1	0.06	0.0008	0.014
2	1		0.0273	10	2.39	2015	0.0273	1	0.12	0.0006	0.028
3	1		0.0000	4.75	0.00		0.0000	1	0.00		
4	1		0.0000	3	0.00		0.0000	1	0.00		
5	1		0.0000	3	0.00		0.0000	1	0.00		
6	1		0.0000	3	0.00		0.0000	1	0.00		
7	1		0.0000	3	0.00		0.0000	1	0.00		
8	1		0.0000	3	0.00		0.0000	1	0.00		
9	1		0.0000	3	0.00		0.0000	1	0.00		
10	1		0.0000	3	0.00		0.0000	1	0.00		
11	1		0.0000	3	0.00		0.0000	1	0.00		
12	1		0.0000	3	0.00		0.0000	1	0.00		
13	1		0.0000	3	0.00		0.0000	1	0.00		
14	1		0.0000	3	0.00		0.0000	1	0.00		
15	1		0.0000	3	0.00		0.0000	1	0.00		
16	1		0.0000	3	0.00		0.0000	1	0.00		
17	1		0.0000	1.5	0.00		0.0000	1	0.00		
18	1		0.0000	1	0.00		0.0000	1	0.00		
.	.	.	.	.	.	.	.	.	.		
.	.	.	.	.	.	.	.	.	.		
.	.	.	.	.	.	.	.	.	.		
65	1		0.0000	1	0.00		0.0000	1	0.00		
66	1		0.0000	1	0.00		0.0000	1	0.00		
67	1		0.0000	1	0.00		0.0000	1	0.00		
68	1		0.0000	1	0.00		0.0000	1	0.00		
69	1		0.0000	1	0.00		0.0000	1	0.00		
70	1		0.0000	1	0.00		0.0000	1	0.00		
Total Increased Cancer Risk					3.56				0.19		

Bay Area AQMD Air District. Annual

1.1 Land Usage

1.2 Other Project Characteristics

1.3 User Entered Comments & Non-Default Data

Demolition - Based on construction list provided

Architectural Coating - Reduced VOC Paint content per BAAQMD Regulations

Vehicle Trips - Entered trip generation rate from traffic with 3% transit reduction and applied to weekends

Off-road Equipment - Based on construction list

Construction Off-road Equipment Mitigation - Tier 2 and BMPs for fugitive dust

[illegible]

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	16.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstructionPhase	NumDays	20.00	80.00
tblConstructionPhase	NumDays	230.00	250.00
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	20.00	25.00
tblConstructionPhase	NumDays	10.00	20.00
tblConstructionPhase	PhaseEndDate	1/16/2017	6/13/2016
tblConstructionPhase	PhaseEndDate	9/30/2016	9/26/2016
tblConstructionPhase	PhaseEndDate	8/4/2015	8/21/2015
tblConstructionPhase	PhaseEndDate	7/18/2016	6/6/2016
tblConstructionPhase	PhaseEndDate	7/22/2015	7/7/2015
tblConstructionPhase	PhaseEndDate	10/30/2015	10/16/2015
tblConstructionPhase	PhaseStartDate	9/27/2016	2/23/2016
tblConstructionPhase	PhaseStartDate	10/17/2015	10/13/2015
tblConstructionPhase	PhaseStartDate	7/8/2015	7/27/2015
tblConstructionPhase	PhaseStartDate	6/14/2016	5/3/2016
tblConstructionPhase	PhaseStartDate	6/25/2015	6/10/2015
tblConstructionPhase	PhaseStartDate	8/22/2015	8/10/2015
tblGrading	AcresOfGrading	9.00	10.00
tblGrading	MaterialExported	0.00	14,800.00
tblLandUse	LotAcreage	9.87	6.90
tblLandUse	LotAcreage	6.30	0.00
tblLandUse	LotAcreage	8.10	2.00
tblOffRoadEquipment	LoadFactor	0.50	0.50
tblOffRoadEquipment	LoadFactor	0.31	0.31
tblOffRoadEquipment	OffRoadEquipmentType		Trenchers
tblOffRoadEquipment	OffRoadEquipmentType		Aerial Lifts
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00

tbiOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tbiOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tbiOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tbiOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tbiOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tbiOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tbiOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tbiOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tbiOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tbiOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tbiOffRoadEquipment	PhaseName		Paving
tbiOffRoadEquipment	UsageHours	6.00	8.00
tbiOffRoadEquipment	UsageHours	8.00	5.30
tbiOffRoadEquipment	UsageHours	8.00	5.10
tbiOffRoadEquipment	UsageHours	7.00	6.40
tbiOffRoadEquipment	UsageHours	8.00	4.80
tbiOffRoadEquipment	UsageHours	8.00	4.80
tbiOffRoadEquipment	UsageHours	8.00	4.80
tbiOffRoadEquipment	UsageHours	8.00	5.30
tbiOffRoadEquipment	UsageHours	7.00	8.00
tbiOffRoadEquipment	UsageHours	8.00	3.60
tbiOffRoadEquipment	UsageHours	8.00	4.80
tbiOffRoadEquipment	UsageHours	8.00	1.30
tbiProjectCharacteristics	CO2IntensityFactor	641.35	328
tbiProjectCharacteristics	OperationalYear	2014	2018
tbiTripsAndVMT	HaulingTripLength	20.00	0.30
tbiTripsAndVMT	HaulingTripLength	20.00	0.30
tbiTripsAndVMT	HaulingTripLength	20.00	0.30
tbiTripsAndVMT	HaulingTripLength	20.00	0.30
tbiTripsAndVMT	HaulingTripLength	20.00	0.30
tbiTripsAndVMT	HaulingTripLength	20.00	0.30
tbiTripsAndVMT	HaulingTripLength	20.00	0.30
tbiTripsAndVMT	HaulingTripNumber	1,463.00	275.00
tbiTripsAndVMT	HaulingTripNumber	0.00	6,650.00
tbiTripsAndVMT	PhaseName		Trenching
tbiTripsAndVMT	VendorTripLength	7.30	0.30
tbiTripsAndVMT	VendorTripLength	7.30	0.30
tbiTripsAndVMT	VendorTripLength	7.30	0.30
tbiTripsAndVMT	VendorTripLength	7.30	0.30
tbiTripsAndVMT	VendorTripLength	7.30	0.30
tbiTripsAndVMT	VendorTripLength	7.30	0.30
tbiTripsAndVMT	VendorTripLength	7.30	0.30
tbiTripsAndVMT	WorkerTripLength	12.40	0.30
tbiTripsAndVMT	WorkerTripLength	12.40	0.30
tbiTripsAndVMT	WorkerTripLength	12.40	0.30
tbiTripsAndVMT	WorkerTripLength	12.40	0.30
tbiTripsAndVMT	WorkerTripLength	12.40	0.30
tbiTripsAndVMT	WorkerTripLength	12.40	0.30
tbiTripsAndVMT	WorkerTripLength	12.40	0.30
tbiVehicleTrips	ST_TR	2.37	1.93
tbiVehicleTrips	SU_TR	0.98	0.80

tblVehicleTrips	WD_TR	11.01	8.97
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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					
2015	0.2821	1.9095	2.0461	1.6300e-003	0.0371	0.1170	0.1541	6.0200e-003	0.1081	0.1141	0.0000	150.9334	150.9334	0.0393	0.0000	151.7593
2016	8.1193	4.1526	5.2795	4.1000e-003	0.0154	0.2363	0.2517	4.3100e-003	0.2197	0.2240	0.0000	370.5568	370.5568	0.0895	0.0000	372.4354
Total	8.4014	6.0621	7.3256	5.7300e-003	0.0525	0.3533	0.4058	0.0103	0.3278	0.3381	0.0000	521.4901	521.4901	0.1288	0.0000	524.1947

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/4/2015	6/24/2015	5	15	
2	Site Preparation	Site Preparation	6/10/2015	7/7/2015	5	20	
3	Grading	Grading	7/27/2015	8/21/2015	5	20	
4	Trenching	Trenching	8/10/2015	10/16/2015	5	50	
5	Building Construction	Building Construction	10/13/2015	9/26/2016	5	250	
6	Interior Construction	Architectural Coating	2/23/2016	6/13/2016	5	80	
7	Paving	Paving	5/3/2016	6/6/2016	5	25	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,605,000; Non-Residential Outdoor: 535,000 (Architectural

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Interior Construction	Air Compressors	2	8.00	78	0.48
Demolition	Excavators	1	8.00	162	0.38
Demolition	Concrete/Industrial Saws	1	5.30	81	0.73
Grading	Excavators	2	5.10	162	0.38
Building Construction	Cranes	2	6.40	226	0.29
Building Construction	Forklifts	2	4.80	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Paving	Pavers	2	4.80	125	0.42
Paving	Rollers	2	4.80	80	0.38
Demolition	Rubber Tired Dozers	1	5.30	255	0.40
Grading	Rubber Tired Dozers	0	8.00	255	0.40
Building Construction	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Graders	2	3.60	174	0.41
Grading	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Paving	Paving Equipment	3	4.80	130	0.36

Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	8.00	255	0.40
Building Construction	Welders	4	1.30	46	0.45
Trenching	Trenchers	2	8.00	80	0.50
Interior Construction	Aerial Lifts	4	7.50	62	0.31
Paving	Tractors/Loaders/Backhoes	4	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	3	8.00	0.00	247.00	0.30	0.30	0.30	LD_Mix	HDT_Mix	HHDT
Site Preparation	4	10.00	0.00	0.00	0.30	0.30	0.30	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	275.00	0.30	0.30	0.30	LD_Mix	HDT_Mix	HHDT
Building Construction	12	406.00	175.00	6,650.00	0.30	0.30	0.30	LD_Mix	HDT_Mix	HHDT
Paving	11	28.00	0.00	0.00	0.30	0.30	0.30	LD_Mix	HDT_Mix	HHDT
Interior Construction	6	81.00	0.00	0.00	0.30	0.30	0.30	LD_Mix	HDT_Mix	HHDT
Trenching	2	5.00	0.00	0.00	0.30	0.30	0.30	LD_Mix	HDT_Mix	HHDT

3.2 Demolition - 2015

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					0.0268	0.0000	0.0268	4.0500e-003	0.0000	4.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0130	0.1328	0.0992	1.1000e-004		7.0600e-003	7.0600e-003		6.6500e-003	6.6500e-003	0.0000	10.6612	10.6612	2.6700e-003	0.0000	10.7173
Total	0.0130	0.1328	0.0992	1.1000e-004	0.0268	7.0600e-003	0.0338	4.0500e-003	6.6500e-003	0.0107	0.0000	10.6612	10.6612	2.6700e-003	0.0000	10.7173

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	1.7000e-003	3.6000e-003	0.0249	0.0000	3.0000e-005	2.0000e-005	6.0000e-005	1.0000e-005	2.0000e-005	3.0000e-005	0.0000	0.3264	0.3264	1.0000e-005	0.0000	0.3266
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-004	5.0000e-005	6.3000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0249	0.0249	0.0000	0.0000	0.0250
Total	1.8700e-003	3.6500e-003	0.0255	0.0000	4.0000e-005	2.0000e-005	7.0000e-005	1.0000e-005	2.0000e-005	3.0000e-005	0.0000	0.3514	0.3514	1.0000e-005	0.0000	0.3516

3.3 Site Preparation - 2015

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
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Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0144	0.1373	0.0970	1.2000e-004		0.0108	0.0108		9.8900e-003	9.8900e-003	0.0000	11.8837	11.8837	3.5500e-003	0.0000	11.9582
Total	0.0144	0.1373	0.0970	1.2000e-004	0.0000	0.0108	0.0108	0.0000	9.8900e-003	9.8900e-003	0.0000	11.8837	11.8837	3.5500e-003	0.0000	11.9582

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	2.8000e-004	8.0000e-005	1.0600e-003	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0416	0.0416	1.0000e-005	0.0000	0.0417
Total	2.8000e-004	8.0000e-005	1.0600e-003	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0416	0.0416	1.0000e-005	0.0000	0.0417

3.4 Grading - 2015

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					5.3000e-003	0.0000	5.3000e-003	5.7000e-004	0.0000	5.7000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0293	0.2971	0.1857	2.5000e-004		0.0193	0.0193		0.0178	0.0178	0.0000	23.6743	23.6743	7.0700e-003	0.0000	23.8227
Total	0.0293	0.2971	0.1857	2.5000e-004	5.3000e-003	0.0193	0.0246	5.7000e-004	0.0178	0.0183	0.0000	23.6743	23.6743	7.0700e-003	0.0000	23.8227

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	1.8900e-003	4.0100e-003	0.0277	0.0000	4.0000e-005	2.0000e-005	6.0000e-005	1.0000e-005	2.0000e-005	3.0000e-005	0.0000	0.3634	0.3634	1.0000e-005	0.0000	0.3636
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	5.6000e-004	1.5000e-004	2.1100e-003	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0831	0.0831	1.0000e-005	0.0000	0.0834
Total	2.4500e-003	4.1600e-003	0.0298	0.0000	9.0000e-005	2.0000e-005	1.1000e-004	2.0000e-005	2.0000e-005	4.0000e-005	0.0000	0.4465	0.4465	2.0000e-005	0.0000	0.4470

3.5 Trenching - 2015

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	0.0290	0.2545	0.1423	1.7000e-004		0.0199	0.0199		0.0183	0.0183	0.0000	16.5751	16.5751	4.9500e-003	0.0000	16.6790
Total	0.0290	0.2545	0.1423	1.7000e-004		0.0199	0.0199		0.0183	0.0183	0.0000	16.5751	16.5751	4.9500e-003	0.0000	16.6790

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	3.5000e-004	1.0000e-004	1.3200e-003	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0520	0.0520	1.0000e-005	0.0000	0.0521
Total	3.5000e-004	1.0000e-004	1.3200e-003	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0520	0.0520	1.0000e-005	0.0000	0.0521

3.6 Building Construction - 2015

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	0.0964	0.9142	0.5064	7.2000e-004		0.0588	0.0588		0.0544	0.0544	0.0000	68.0076	68.0076	0.0202	0.0000	68.4319
Total	0.0964	0.9142	0.5064	7.2000e-004		0.0588	0.0588		0.0544	0.0544	0.0000	68.0076	68.0076	0.0202	0.0000	68.4319

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	0.0106	0.0225	0.1553	2.0000e-005	6.9000e-004	1.3000e-004	8.3000e-004	1.8000e-004	1.2000e-004	3.0000e-004	0.0000	2.0388	2.0388	5.0000e-005	0.0000	2.0398
Vendor	0.0516	0.1342	0.6783	1.4000e-004	1.4600e-003	8.7000e-004	2.3300e-003	4.3000e-004	7.9000e-004	1.2200e-003	0.0000	12.3066	12.3066	2.1000e-004	0.0000	12.3110
Worker	0.0329	8.9600e-003	0.1243	6.0000e-005	2.7000e-003	1.2000e-004	2.8200e-003	7.3000e-004	1.1000e-004	8.4000e-004	0.0000	4.8947	4.8947	5.9000e-004	0.0000	4.9071
Total	0.0951	0.1666	0.9578	2.2000e-004	4.6500e-003	1.1200e-003	5.9800e-003	1.3400e-003	1.0200e-003	2.3600e-003	0.0000	19.2401	19.2401	8.5000e-004	0.0000	19.2580

3.6 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	0.3026	2.8979	1.6533	2.4000e-003		0.1834	0.1834		0.1694	0.1694	0.0000	222.7766	222.7766	0.0665	0.0000	224.1732
Total	0.3026	2.8979	1.6533	2.4000e-003		0.1834	0.1834		0.1694	0.1694	0.0000	222.7766	222.7766	0.0665	0.0000	224.1732

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	0.0315	0.0684	0.4882	8.0000e-005	8.4000e-004	3.1000e-004	1.1500e-003	2.3000e-004	2.8000e-004	5.1000e-004	0.0000	6.6636	6.6636	1.4000e-004	0.0000	6.6666
Vendor	0.1535	0.4094	2.1202	4.8000e-004	4.8400e-003	2.2000e-003	7.0400e-003	1.4300e-003	2.0300e-003	3.4300e-003	0.0000	40.2837	40.2837	6.5000e-004	0.0000	40.2973
Worker	0.1006	0.0265	0.3700	2.1000e-004	8.9300e-003	3.9000e-004	9.3100e-003	2.4200e-003	3.5000e-004	2.7800e-003	0.0000	15.6634	15.6634	1.7500e-003	0.0000	15.7001
Total	0.2856	0.5043	2.9786	7.7000e-004	0.0146	2.9000e-003	0.0175	4.0800e-003	2.6300e-003	6.7200e-003	0.0000	62.6107	62.6107	2.5400e-003	0.0000	62.6640

3.7 Interior 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					
Archit. Coating	7.4392					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0477	0.3907	0.3628	5.6000e-004		0.0266	0.0266		0.0262	0.0262	0.0000	50.4496	50.4496	0.0102	0.0000	50.6641
Total	7.4868	0.3907	0.3628	5.6000e-004		0.0266	0.0266		0.0262	0.0262	0.0000	50.4496	50.4496	0.0102	0.0000	50.6641

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	8.3600e-003	2.2000e-003	0.0308	2.0000e-005	7.4000e-004	3.0000e-005	7.7000e-004	2.0000e-004	3.0000e-005	2.3000e-004	0.0000	1.3021	1.3021	1.5000e-004	0.0000	1.3051
Total	8.3600e-003	2.2000e-003	0.0308	2.0000e-005	7.4000e-004	3.0000e-005	7.7000e-004	2.0000e-004	3.0000e-005	2.3000e-004	0.0000	1.3021	1.3021	1.5000e-004	0.0000	1.3051

3.8 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	0.0350	0.3574	0.2508	3.5000e-004		0.0233	0.0233		0.0215	0.0215	0.0000	33.2772	33.2772	0.0100	0.0000	33.4880
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0350	0.3574	0.2508	3.5000e-004		0.0233	0.0233		0.0215	0.0215	0.0000	33.2772	33.2772	0.0100	0.0000	33.4880

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-004	2.4000e-004	3.3200e-003	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.1407	0.1407	2.0000e-005	0.0000	0.1410
Total	9.0000e-004	2.4000e-004	3.3200e-003	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.1407	0.1407	2.0000e-005	0.0000	0.1410



LEED 2009 for New Construction and Major Renovations

Project Checklist

EXHIBIT B

Lexus of Pleasanton

RECEIVED MARCH 7, 2014

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7	7	12	Sustainable Sites	Possible Points: 26
Y	?	N		
Y			Prereq 1 Construction Activity Pollution Prevention	
1			Credit 1 Site Selection	1
	5		Credit 2 Development Density and Community Connectivity	5
		1	Credit 3 Brownfield Redevelopment	1
		6	Credit 4.1 Alternative Transportation—Public Transportation Access	6
	1		Credit 4.2 Alternative Transportation—Bicycle Storage and Changing Rooms	1
3			Credit 4.3 Alternative Transportation—Low-Emitting and Fuel-Efficient Vehicles	3
2			Credit 4.4 Alternative Transportation—Parking Capacity	2
		1	Credit 5.1 Site Development—Protect or Restore Habitat	1
		1	Credit 5.2 Site Development—Maximize Open Space	1
		1	Credit 6.1 Stormwater Design—Quantity Control	1
	1		Credit 6.2 Stormwater Design—Quality Control	1
		1	Credit 7.1 Heat Island Effect—Non-roof	1
1			Credit 7.2 Heat Island Effect—Roof	1
		1	Credit 8 Light Pollution Reduction	1

5	1	2	Water Efficiency	Possible Points: 10
Y			Prereq 1 Water Use Reduction—20% Reduction	
2			Credit 1 Water Efficient Landscaping	2 to 4
		2	Credit 2 Innovative Wastewater Technologies	2
3	1		Credit 3 Water Use Reduction	2 to 4

8	3	9	Energy and Atmosphere	Possible Points: 35
Y			Prereq 1 Fundamental Commissioning of Building Energy Systems	
Y			Prereq 2 Minimum Energy Performance	
Y			Prereq 3 Fundamental Refrigerant Management	
4			Credit 1 Optimize Energy Performance	1 to 19
	1	6	Credit 2 On-Site Renewable Energy	1 to 7
2			Credit 3 Enhanced Commissioning	2
2			Credit 4 Enhanced Refrigerant Management	2
		3	Credit 5 Measurement and Verification	3
	2		Credit 6 Green Power	2

7		7	Materials and Resources	Possible Points: 14
Y			Prereq 1 Storage and Collection of Recyclables	
		3	Credit 1.1 Building Reuse—Maintain Existing Walls, Floors, and Roof	1 to 3
		1	Credit 1.2 Building Reuse—Maintain 50% of Interior Non-Structural Elements	1
2			Credit 2 Construction Waste Management	1 to 2
		2	Credit 3 Materials Reuse	1 to 2

Materials and Resources, Continued				
Y	?	N		
2			Credit 4 Recycled Content	1 to 2
2			Credit 5 Regional Materials	1 to 2
		1	Credit 6 Rapidly Renewable Materials	1
1			Credit 7 Certified Wood	1

8	2	5	Indoor Environmental Quality	Possible Points: 15
Y			Prereq 1 Minimum Indoor Air Quality Performance	
Y			Prereq 2 Environmental Tobacco Smoke (ETS) Control	
	1		Credit 1 Outdoor Air Delivery Monitoring	1
		1	Credit 2 Increased Ventilation	1
1			Credit 3.1 Construction IAQ Management Plan—During Construction	1
		1	Credit 3.2 Construction IAQ Management Plan—Before Occupancy	1
1			Credit 4.1 Low-Emitting Materials—Adhesives and Sealants	1
1			Credit 4.2 Low-Emitting Materials—Paints and Coatings	1
1			Credit 4.3 Low-Emitting Materials—Flooring Systems	1
1			Credit 4.4 Low-Emitting Materials—Composite Wood and Agrifiber Products	1
	1		Credit 5 Indoor Chemical and Pollutant Source Control	1
1			Credit 6.1 Controllability of Systems—Lighting	1
		1	Credit 6.2 Controllability of Systems—Thermal Comfort	1
1			Credit 7.1 Thermal Comfort—Design	1
1			Credit 7.2 Thermal Comfort—Verification	1
		1	Credit 8.1 Daylight and Views—Daylight	1
		1	Credit 8.2 Daylight and Views—Views	1

4	2	Innovation and Design Process	Possible Points: 6
1		Credit 1.1 Innovation in Design: Green Cleaning Policy (RE: EBOM IEQp & IEQc3)	1
1		Credit 1.2 Innovation in Design: Exemp Perf. MRc2 Construction Waste Mgmt	1
1		Credit 1.3 Innovation in Design: Environmental Education & Outreach	1
	1	Credit 1.4 Innovation in Design: Green Power	1
	1	Credit 1.5 Innovation in Design: Specific Title	1
1		Credit 2 LEED Accredited Professional	1

2	2	Regional Priority Credits	Possible Points: 4
1		Credit 1.1 Regional Priority: Specific Credit	1
1		Credit 1.2 Regional Priority: Specific Credit	1
	1	Credit 1.3 Regional Priority: Specific Credit	1
	1	Credit 1.4 Regional Priority: Specific Credit	1

41	17	35	Total	Possible Points: 110
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Certified 40 to 49 points Silver 50 to 59 points Gold 60 to 79 points Platinum 80 to 110