Case No. 2024-0160
Also Referred to as
Case No. 2023-0603

ArtiCraft Cabinetry Facility
15172 Goldenwest Circle

Proposed Final Initial Study and Mitigated Negative Declaration

Lead Agency
City of Westminster
Planning Division
8200 Westminster Boulevard
Westminster, California 92683

Prepared By
Hodge & Associates
3450 Palmer Dr., Ste 4
Cameron Park, California 95682

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City of Westminster
Environmental Analysis Checklist Explanations

ArtiCraft Cabinetry Facility
15172 Goldenwest Circle

1. Project Location and Surrounding Land Uses

The project site for the proposed industrial business is located at 15172 Goldenwest Circle in Westminster, California. The site is on Goldenwest Circle off Bolsa Avenue adjacent to the Interstate 405 Freeway. On the north side, the site is bordered by Goldenwest Circle. The site is bordered by other industrial facilities to the north, west and east and the 405 Freeway to the south. The site is privately-owned.

The site is zoned M-2, which is Medium Industrial. The General Plan Land Use designation is Industrial. The proposed building will reach 44 feet in height on one corner of the building where the offices are located. The project will require Development Review and a Variance to exceed the maximum 35-foot building height limit.

Exhibit 1 shows the regional location of the Project. Exhibit 2 shows the Project site and the Project vicinity. Exhibit 3 is an aerial photograph of the Project area. Exhibit 4 shows the proposed site plan. Exhibit 5 is the Precise Grading Plan. Exhibit 6 is the Conceptual Landscape Plan. The proposed Project plans are on file with the City of Westminster, Planning Department.

2. Project Description

The project consists of the demolition of the existing building, parking lot and landscaping at 15172 Goldenwest Circle in the City of Westminster. Once the site is cleared, construction will begin on an approximately 116,000 square foot building that will house the 405 Cabinets and Stone showroom, administrative offices, and warehouse/assembly line areas. The building will be sited in the middle of the 232,201-square-foot building site. It will be surrounded by parking areas and landscaping. The two-story office area of the building, about 7,900 square feet, will include offices, conference rooms and workstations for design activities. The warehouse area of the building will consist of space for assembly line, racks, offices for warehouse managers, will call center and fork-lift charging stations. The warehouse portion will include five drive-in doors and right-loading doors.

The building's orientation will allow exposure of the west and south building façades to the 405 Freeway. Two sets of stairs and an elevator are provided to meet ADA access requirements. Vehicles will access the site through an existing driveway off Goldenwest Circle that will be widened to 40 feet. There is no existing sidewalk or pedestrian access along Goldenwest Circle. The project is designed with a total of 147 parking spaces, including EV and ADA parking, and 116 spaces are required in accordance with the Westminster Municipal Code. The proposed building will reach 44 feet in height on one corner of the building where the offices are located. The project parcel totals 5.331 acres and is located along the 405 Freeway and Goldenwest Circle.

The Project requires the following entitlements:

- **Variance –** To exceed the maximum 35-foot building height limit;
- **Development Review** – To consider the site and the architectural design of the proposed Project; and
- **Environmental Analysis** – To review the environmental impacts resulting from the proposed Project.

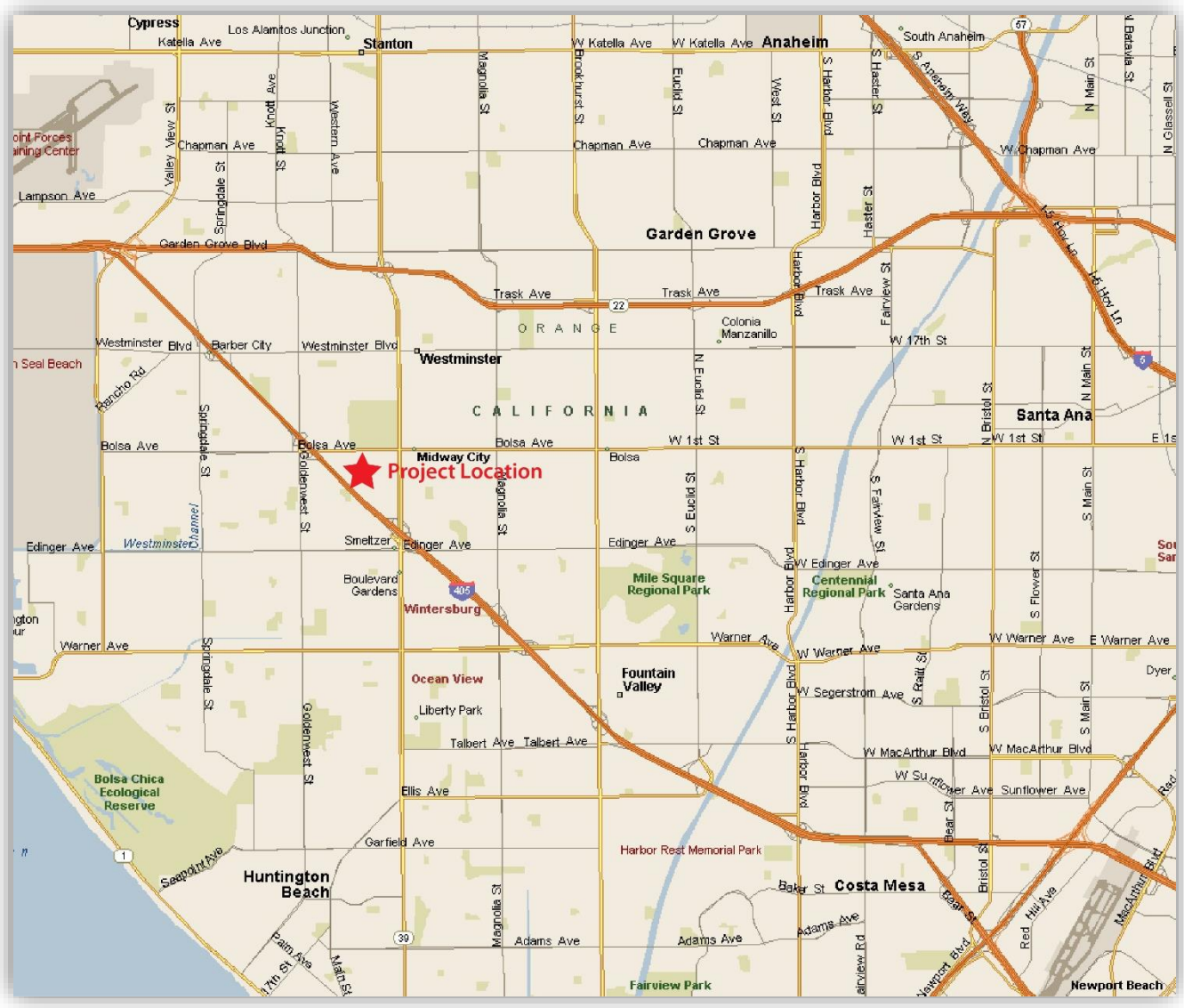

Exhibit 1. Regional Location Map

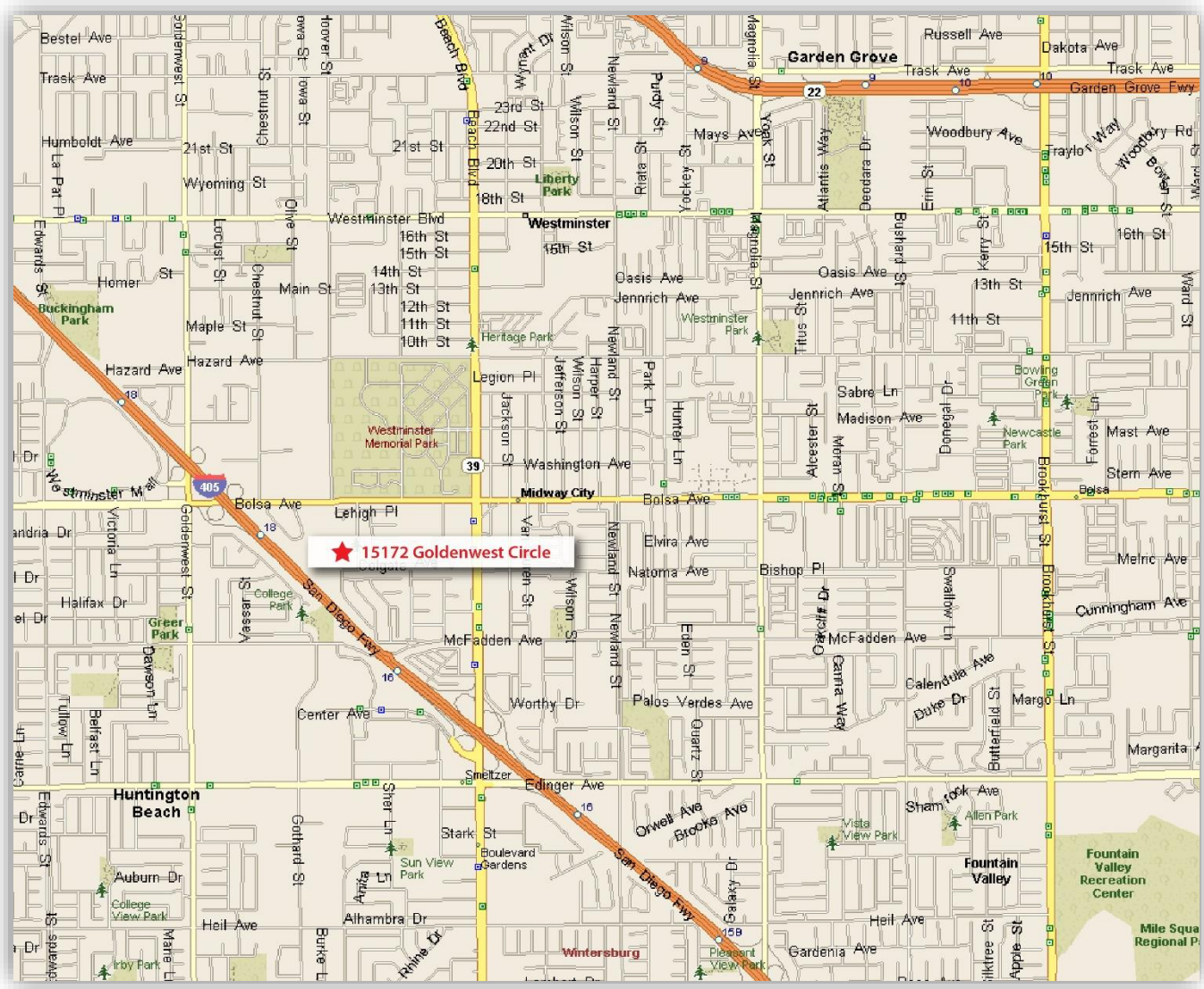

Exhibit 2. Project Vicinity Map

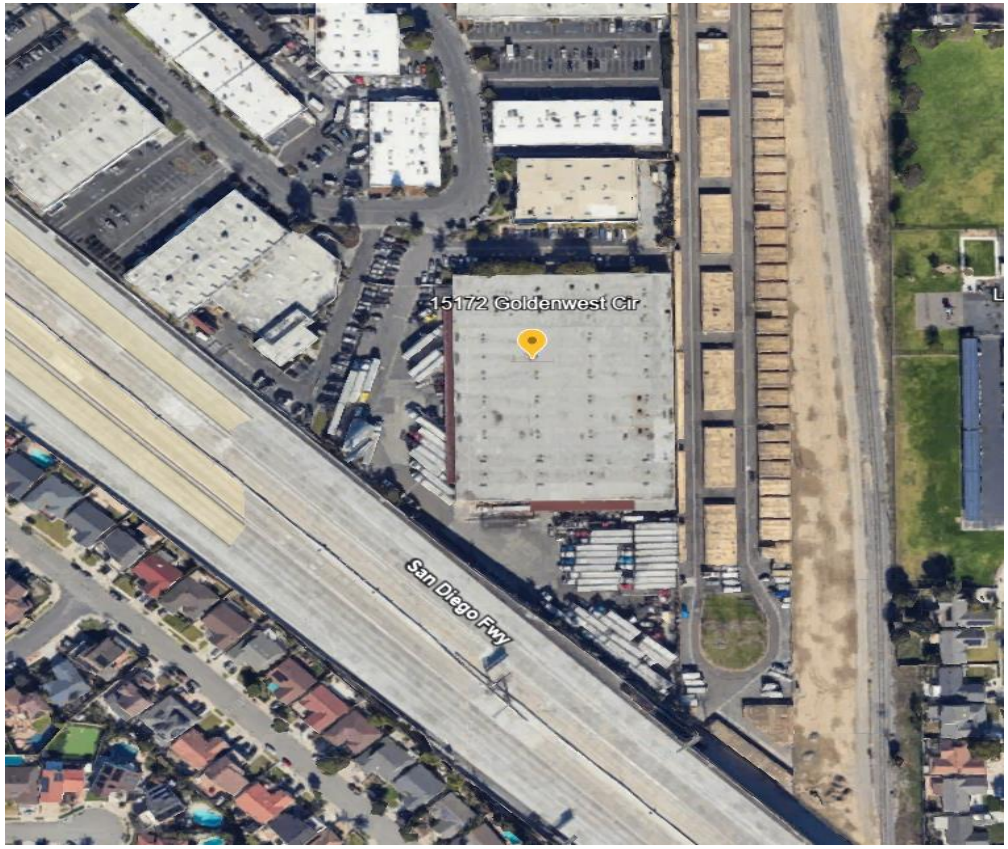

Exhibit 3. Aerial Photo of Project Site Area

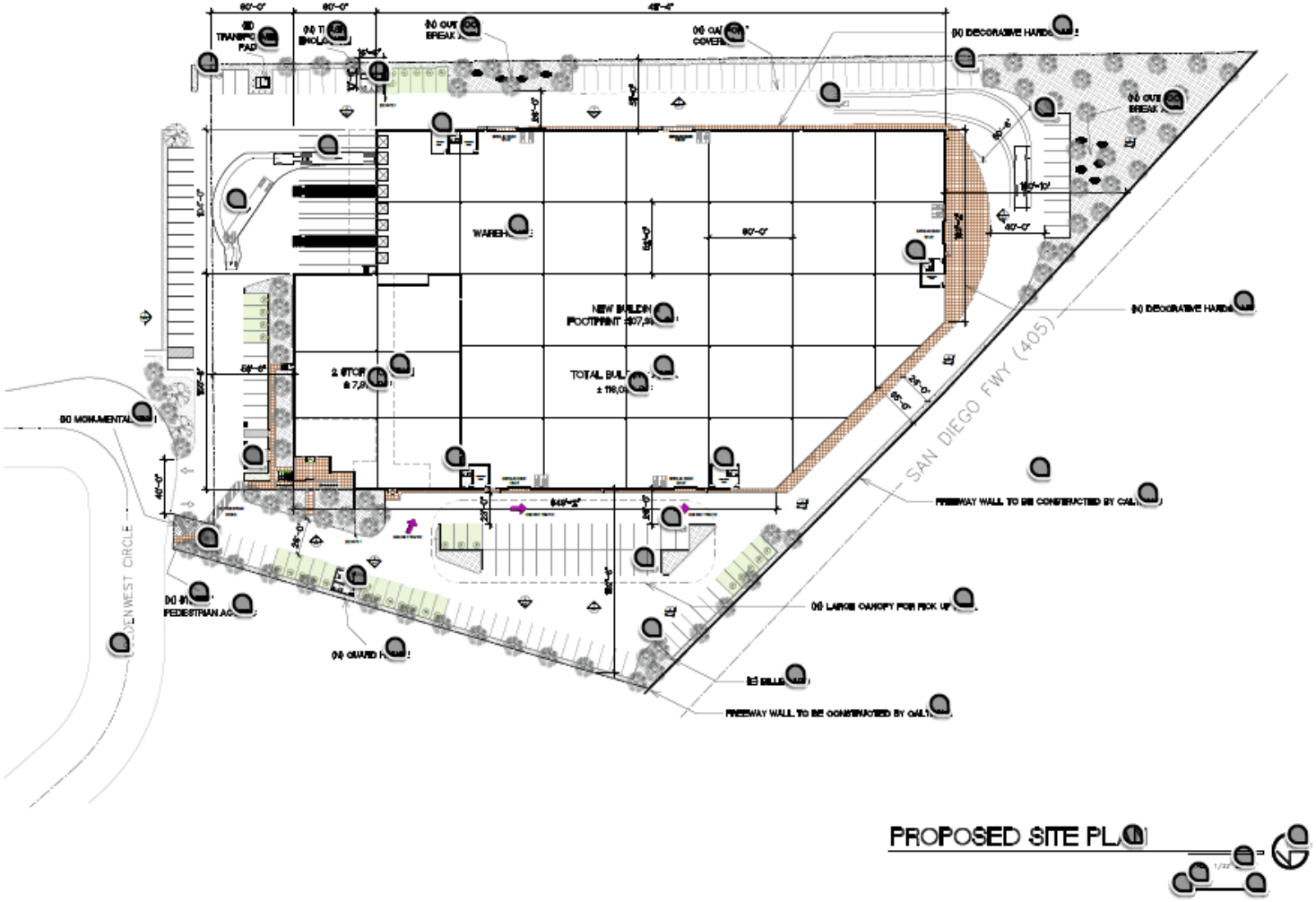

Exhibit 4. Site Plan

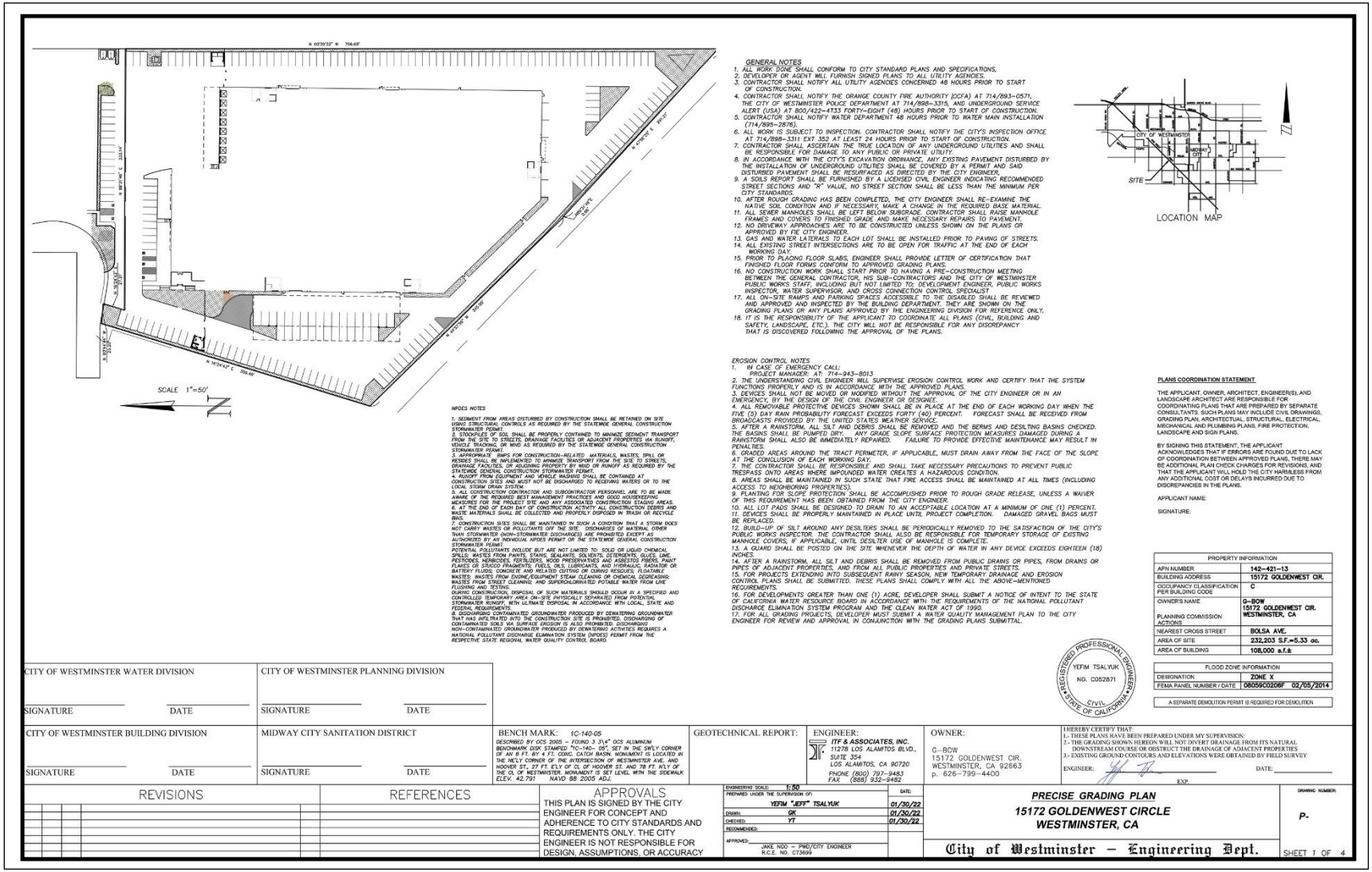

Exhibit 5. Precise Grading Plan

Exhibit 6. Conceptual Landscape Plan

3. Proposed Actions

The Project will require City approval of a variance and Development Review. The proposed Project requires compliance with environmental procedures (CEQA and the CEQA Guidelines). The proposed actions require Planning Commission and City Council approval.

4. Statutory Authority

Preparation of the Initial Study and Mitigated Negative Declaration is governed by two principal sets of documents: the California Environmental Quality Act (*California Public Resources Code* §21000, et seq.; hereinafter CEQA) and the CEQA Guidelines (*California Code of Regulations* §15000, et seq.). Additionally, City of Westminster procedures and case law provide guidance to this Initial Study and Mitigated Negative Declaration.

In compliance with state law and procedures, the City has determined that the Mitigated Negative Declaration is the appropriate environmental compliance for the proposed Project. Therefore, the City will not cause to be prepared an Environmental Impact Report (EIR). In compliance with §15063 of the CEQA Guidelines, the City conducted an Initial Study to determine if the Project may have a significant effect on the environment. The Initial Study Checklist and explanation discussion format meets the requirements of the CEQA. Section 15063(d)(3) requires that the entries on the Initial Study Checklist identifying environmental effects be briefly explained to indicate that there is some evidence to support the entries. An Initial Study may rely upon expert opinion supported by facts, technical studies, or other substantial evidence to document its findings. An Initial Study is not intended nor required to include a level of detail that would be provided in an EIR. Therefore, in compliance with CEQA and the CEQA Guidelines, the IS/MND is not intended to be a lengthy detailed document.

5. Incorporation by Reference

Certain documents are incorporated by reference into this Initial Study and Mitigated Negative Declaration pursuant to CEQA Guidelines §15150. These documents and the locations where they can be inspected are identified in the Initial Study Checklist (Appendix A of this Initial Study and Mitigated Negative Declaration). Where a document is referenced, its pertinent sections will be briefly summarized in the discussions in this environmental document.

6. Analysis

The initial step in the City's environmental evaluation is completion of an Environmental Checklist (also known as an "Initial Study") to identify known or potential impacts and eliminate environmentally irrelevant issues. After each issue listed on the Checklist, the City has marked "potentially significant impact," "less than significant with mitigation incorporated," "less than significant impact," or "no impact" depending on the potential of the Project to have adverse impacts. The Environmental Checklist prepared for the proposed Project is presented in Appendix A of this environmental document.

The following discussion provides explanations for the conclusions contained in the Environmental Checklist regarding the proposed Project's environmental impacts.

1. Aesthetics

The City of Westminster is a community located in northwest Orange County. The neighborhood where the Project is located primarily contains office/industrial properties with residences located to the east and the I-405 Freeway to the southwest. The I-405 Freeway is not an established scenic corridor. The topography of the neighborhood is flat. This section evaluates the aesthetics impacts of the Project.

Would the Project:

a) Have a substantial adverse effect on a scenic vista?

No Impact

The Project site is not located in an area that includes a scenic vista. Surrounding properties are developed with office/industrial uses, a nearby school, residences, and the freeway. The Project site is located in a developed area of the City. Therefore, the Project will not result in a substantial adverse effect on a scenic vista.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact

See response to Item 1.a) above. The Project will not have a significant impact on any scenic resources such as trees, rock outcroppings, or historic buildings. Additionally, the property is not located along a state scenic highway. Therefore, the Project will not result in any significant impacts for this topical area.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

No Impact

It is not anticipated that the Project will substantially impact the visual character or quality of the site and its surroundings. The Project plans were previously presented in the Project Description section of this document (Exhibit 4 and Exhibit 5). The proposed cabinet showroom, warehouse, and offices facility is compatible with the surrounding land uses. The Conceptual Landscape Plan (2.Exhibit 6) illustrates landscaping designed to soften the building mass. Surrounding and nearby land uses to the Project site include industrial uses, a school, and nearby residential uses. Therefore, the proposed mostly single-story building on the subject site will not result in any significant impacts relative to visual character or quality of the site and its surroundings.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less Than Significant Impact with Mitigation Incorporated

The surrounding properties are already developed with existing industrial and nearby residential uses and an elementary school. Exterior lighting is proposed on the cabinetry showroom, warehouse, and offices building and the adjacent parking areas. Final lighting

design (fixture locations) will be implemented with attention to the surrounding uses, particularly the nearby residential uses east of the property. While lighting associated with the Project will be visible, a mitigation measure is proposed that requires a lighting plan for the building to be approved by the City, recognizing the urbanized location. All light sources should be designed to eliminate light and glare spillage onto adjacent properties or uses. Therefore, substantial light and/or glare impacts with mitigation incorporated should be less than significant.

Mitigation Measure 1 – Prior to issuance of any building permits, the applicant shall demonstrate to the Planning Department that the lighting system has been designed and directed in such a manner as to minimize the light source and to minimize light spillage and glare to the adjacent properties. Applicant shall provide a lighting plan that identifies light fixture product types and technical specifications, including photometric information to determine the extent of light spillage or glare that can be anticipated. This information shall be made a part of the building set of plans for the issuance of the building permit.

2. Agriculture and Forestry Resources

This section evaluates the impact on agricultural and forestry resources within the City of Westminster. The City is primarily developed and does not include significant or extensive agricultural and forest resources.

Would the Project:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact

The proposed Project does not involve conversion of any farmland. The proposed Project does not call for rezoning of farmland, nor is it currently zoned for agriculture. Therefore, the proposed Project will not have any impacts on agriculture resources.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact

See response to Item 2.a) above. The Project would not conflict with existing zoning for agricultural use, or a Williamson Act contract. The property is not under a Williamson Act contract. Therefore, no impacts to this topical area would occur as a result of the proposed Project.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

No Impact

The Project does not involve land that is considered forest land or timberland zoned for timberland production. Therefore, no impacts to this topical area would occur as a result of the proposed Project.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact

The Project is located in an existing urban area and does not involve conversion of forest land to non-forest use. Therefore, no impacts to this topical area would occur as a result of the proposed Project.

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

No Impact

The proposed Project will not have any impact on farmland or agricultural uses. The Project site is within a developed area surrounded by industrial and nearby residential uses. Therefore, the Project will not have any impact that could result in the conversion of property to non-agricultural use.

3. Air Quality

An Air Quality and GHG Impact Analysis by Gerrick Environmental (dated August 28, 2023 (Appendix B) was prepared for the ArtiCraft project. The analysis considered the climatological setting of the Project and examined the Clean Air Act requirements and the air quality standards that would be applied to the Project. The analysis modeled the Project and projected the air quality impacts that would be expected with implementation of the Project.

Atmospheric Setting

The climate of Westminster, technically called a Mediterranean-type climate, is characterized by warm summers, mild winters, infrequent rainfall, moderate afternoon breezes, and generally fair weather. Temperatures near the Project area average a very comfortable 63°F year-round. Summer afternoons are typically in the middle 80s, and winter mornings drop to the low- to mid-40s. About 45 summer days reach 90°F, and 5 days per year may drop to 32°F, but significant extremes of temperature are rare in the Project area. Rainfall in the Los Angeles Basin varies considerably in both time and space. Average rainfall amounts vary from 10 to 18 inches as a function of local exposure and topography. Westminster averages 14.6 inches of rain during a normal year. Almost all the annual rainfall comes from the fringes of mid-latitude storms from late November to early April with summers often completely dry. Light rain (0.1 inch in 24 hours) falls on 20 days during a normal year with 10 days in the moderate (0.5 inch in 24 hours) category.

Winds blow primarily from southwest to northeast by day and from northeast to southwest at night in response to the regional pattern of onshore flow by day and offshore flow at night. Average wind speeds are 5 miles per hour average in the Westminster area, reaching 6 to 8 miles per hour in the afternoon but dropping to near calm conditions (1 to 3 miles per hour) at night.

The net effect of local airflow in terms of air pollution is that daytime ventilation is good, and any locally generated air pollutants will be rapidly dispersed by the strong daytime turbulence. At night, however, pooling of cool air in low elevations combined with light winds allows for air stagnation in protected areas, especially near area freeways with elevated pollution levels. However, because such effects are highly localized, the Project area is sufficiently far from any major roadways that it will be little affected by such air stagnation effects.

In addition to winds that control the rate and direction of pollution dispersal, Southern California is notorious for strong temperature inversions that limit the vertical depth through which pollution can be mixed. In summer, coastal areas are characterized by a sharp discontinuity between the cool marine air at the surface and the warm, sinking air aloft within the high-pressure cell over the ocean to the west. This marine/subsidence inversion allows for good local mixing, but acts like a giant lid over the basin. Air starting onshore at the beach is relatively clean, but becomes progressively more polluted as sources continue to add pollution from below without any dilution from above. Air arriving at Westminster during warm season marine flow conditions has undergone limited photochemical reactions, but not to its fullest extent possible. Summer smog levels in Westminster are much lower than in inland valleys of the basin such as the San Gabriel Valley or the Pomona-Walnut Valley. Summer air quality is only moderately degraded compared to the severe degradation found farther inland within the air basin.

A second inversion type forms on clear winter nights when cold air off the mountains sinks to the surface while the air aloft remains warm. This process forms radiation inversions. These inversions, in conjunction with calm winds, trap pollutants such as automobile exhaust near their source. During the long nocturnal drainage flow from land to sea, the exhaust pollutants continually accumulate within the shallow, cool layer of air near the ground. Central Orange County thus may experience elevated levels of carbon monoxide and nitrogen oxides because of this winter inversion condition. With ongoing vehicular improvements, clean air standards are generally not exceeded during nocturnal stagnation periods as they were 10 to 20 years ago.

Both types of inversions occur throughout the year to some extent, but the marine inversions are dominant during the day in summer, and radiation inversions are much stronger on winter nights when nights are long and air is cool. The governing role of these inversions in atmospheric dispersion leads to a substantially different air quality environment in summer near the Project area than in winter.

Air Quality Setting

Ambient Air Quality Standards (AAQS)

To gauge the significance of the air quality impacts of the proposed Project, those impacts, together with existing background air quality levels, must be compared to the applicable ambient air quality standards. These standards are the levels of air quality considered safe, with an adequate margin of safety to protect the public health and welfare. The standards are designed to protect “sensitive receptors,” including those people most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other

disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed. However, recent research has shown that chronic exposure to ozone (the primary ingredient in photochemical smog) may lead to adverse respiratory health even at concentrations close to the ambient standard.

National AAQS were established in 1971 for six pollution species, with states retaining the option to add other pollutants to require more stringent compliance, or to include different exposure periods. The initial attainment deadline of 1977 has been extended several times in air quality problem areas like Southern California. In 2003, the Environmental Protection Agency (EPA) adopted a rule that extended and established a new attainment deadline for ozone for the year 2021. Because the State of California had established AAQS several years before the federal action, and because of unique air quality problems introduced by the restrictive dispersion meteorology, considerable difference exists between state and national clean air standards. Those standards currently in effect in California are shown in Table 1. Sources and health effects of various pollutants are shown in Table 2.

The Federal Clean Air Act Amendments (CAAA) of 1990 required that the U.S. Environmental Protection Agency (EPA) review all national AAQS to consider currently known health effects. EPA was charged with modifying existing standards or enacting new standards where appropriate. EPA subsequently developed standards for chronic ozone exposure (8+ hours per day) and for very small diameter particulate matter ($PM_{2.5}$). New national AAQS were adopted in 1997 for these pollutants.

Planning and enforcement of the federal standards for $PM_{2.5}$ and for ozone (8 hours) were challenged by trucking and manufacturing organizations. In a unanimous decision, the U.S. Supreme Court ruled that EPA did not require specific congressional authorization to adopt national clean air standards. The Court also ruled that health-based standards did not require preparation of a cost-benefit analysis. However, the Court did find that there was some inconsistency between existing and "new" standards in their required attainment schedules. Such attainment-planning schedule inconsistencies centered mainly on the 8-hour ozone standard. EPA subsequently agreed to downgrade the attainment designation for a large number of communities to "non-attainment" for the 8-hour ozone standard.

Evaluation of the most current data on the health effects of inhalation of fine particulate matter prompted the California Air Resources Board (ARB) to recommend adoption of the statewide $PM_{2.5}$ standard that is more stringent than the federal standard. This standard was adopted in 2002. The California $PM_{2.5}$ standard is more of a goal in that it does not have specific attainment planning requirements like a federal clean air standard, but only requires continued progress towards attainment.

Similarly, the ARB extensively evaluated health effects of ozone exposure. A new state standard for an 8-hour ozone exposure was adopted in 2005, which aligned with the exposure period for the federal 8-hour standard. The California 8-hour ozone standard of 0.07 parts per million (ppm) is more stringent than the federal 8-hour standard of 0.075 ppm. However, the state standard does not have a specific attainment deadline. California air quality jurisdictions are required to make steady progress towards attaining state standards, but there are no hard deadlines or any consequences of non-attainment. During the same re-evaluation process, the

ARB adopted an annual state standard for nitrogen dioxide (NO_2) that is more stringent than the corresponding federal standard, and strengthened the state 1-hour NO_2 standard.

Table 1. Ambient Air Quality Standards

Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards [1]		National Standards [2]		
		Concentration [3]	Method [4]	Primary [3,5]	Secondary [3,6]	Method [7]
Ozone (O_3)[8]	1 Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m^3)		0.070 ppm (137 µg/m^3)		
Respirable Particulate Matter (PM10)[9]	24 Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		—		
Fine Particulate Matter (PM2.5)[9]	24 Hour	—	—	35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	12.0 µg/m^3	15 µg/m^3	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m^3)	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m^3)		9 ppm (10 mg/m^3)	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		—	—	
Nitrogen Dioxide (NO_2)[10]	1 Hour	0.18 ppm (339 µg/m^3)	Gas Phase Chemiluminescence	100 ppb (188 µg/m^3)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)		0.053 ppm (100 µg/m^3)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[11]	1 Hour	0.25 ppm (655 µg/m^3)	Ultraviolet Fluorescence	75 ppb (196 µg/m^3)	—	Ultraviolet Flourescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m^3)	
	24 Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (for certain areas)[11]	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas)[11]	—	
Lead[12,13]	30 Day Average	1.5 µg/m^3	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m^3 (for certain areas)[12]	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 µg/m^3		
Visibility Reducing Particles[14]	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 µg/m^3	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24 Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			

See footnotes on next page ...

For more information please call ARB-PIO at (916) 322-2990

California Air Resources Board (5/4/16)

Source: http://www.arb.ca.gov/research/aaqs/aaqs2.pdf

Table 1 (continued)

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.

3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.

5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

7. Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.

8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

9. On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 $\mu g/m^3$ to 12.0 $\mu g/m^3$. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35 $\mu g/m^3$, as was the annual secondary standard of 15 $\mu g/m^3$. The existing 24-hour PM10 standards (primary and secondary) of 150 $\mu g/m^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

11. On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

    Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

12. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 $\mu g/m^3$ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

14. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

For more information please call ARB-PIO at (916) 322-2990 **California Air Resources Board (5/4/16)**

Table 2. Health Effects of Major Criteria Pollutants

Pollutants	Sources	Primary Effects
Carbon Monoxide (CO)	• Incomplete combustion of fuels and other carbon-containing substances, such as motor exhaust. • Natural events, such as decomposition of organic matter.	• Reduced tolerance for exercise. • Impairment of mental function. • Impairment of fetal development. • Death at high levels of exposure. • Aggravation of some heart diseases (angina).
Nitrogen Dioxide (NO_2)	• Motor vehicle exhaust. • High temperature stationary combustion. • Atmospheric reactions.	• Aggravation of respiratory illness. • Reduced visibility. • Reduced plant growth. • Formation of acid rain.
Ozone (O_3)	• Atmospheric reaction of organic gases with nitrogen oxides in sunlight.	• Aggravation of respiratory and cardiovascular diseases. • Irritation of eyes. • Impairment of cardiopulmonary function. • Plant leaf injury.
Lead (Pb)	• Contaminated soil.	• Impairment of blood functions and nerve construction. • Behavioral and hearing problems in children.
Fine Particulate Matter (PM_{10})	• Stationary combustion of solid fuels. • Construction activities. • Industrial processes. • Atmospheric chemical reactions.	• Reduced lung function. • Aggravation of the effects of gaseous pollutants. • Aggravation of respiratory and cardio-respiratory diseases. • Increased cough and chest discomfort. • Soiling. • Reduced visibility.
Fine Particulate Matter ($PM_{2.5}$)	• Fuel combustion in motor vehicles, equipment, and industrial sources. • Residential and agricultural burning. • Industrial processes. • Also, formed from photochemical reactions of other pollutants, including NO_X, sulfur oxides, and organics.	• Increases respiratory disease. • Lung damage. • Cancer and premature death. • Reduces visibility and results in surface soiling.
Sulfur Dioxide (SO_2)	• Combustion of sulfur-containing fossil fuels. • Smelting of sulfur-bearing metal ores. • Industrial processes.	• Aggravation of respiratory diseases (asthma, emphysema). • Reduced lung function. • Irritation of eyes. • Reduced visibility. • Plant injury. • Deterioration of metals, textiles, leather, finishes, coatings, etc.

Source: California Air Resources Board, 2002

As part of EPA's 2002 consent decree on clean air standards, a further review of airborne particulate matter (PM) and human health was initiated. A substantial modification of federal clean air standards for PM was enacted in 2006. Standards for $PM_{2.5}$ were strengthened, a new class of PM in the 2.5- to 10-micron size was created, some PM_{10} standards were revoked, and a distinction between rural and urban air quality was adopted. In December 2012, the federal annual standard for $PM_{2.5}$ was reduced from 15 $\mu g/m^3$ to 12 $\mu g/m^3$, which matches the California AAQS. The severity of the basin's non-attainment status for $PM_{2.5}$ may be increased by this action and thus require accelerated planning for future $PM_{2.5}$ attainment.

In response to continuing evidence that ozone exposure at levels just meeting federal clean air standards is demonstrably unhealthful, EPA proposed a further strengthening of the 8-hour standard. A new 8-hour ozone standard was adopted in 2015 after extensive analysis and public input. The adopted national 8-hour ozone standard is 0.07 ppm, which matches the current California standard. It will require 3 years of ambient data collection, then 2 years of non-attainment findings and planning protocol adoption, then several years of plan development and approval. Final air quality plans for the new standard are likely to be adopted around 2022. Ultimate attainment of the new standard in ozone problem areas such as Southern California might be after 2025.

In 2010 a new federal 1-hour primary standard for nitrogen dioxide (NO_2) was adopted. This standard is more stringent than the existing state standard. Based upon air quality monitoring data in the South Coast Air Basin, the California Air Resources Board has requested the EPA to designate the basin as being in attainment for this standard. The federal standard for sulfur dioxide (SO_2) was also recently revised. However, with minimal combustion of coal and mandatory use of low sulfur fuels in California, SO_2 is typically not a problem pollutant.

Baseline Air Quality

Existing and probable future levels of air quality around the Project area can best be inferred from ambient air quality measurements conducted by the SCAQMD at the Anaheim monitoring station. This station measures regional pollution levels such as smog, as well as primary vehicular pollution levels, such as carbon monoxide and nitrogen oxides, near busy roadways. Pollutants such as particulates (PM_{10} and $PM_{2.5}$) are also monitored at Anaheim. Table 3 is a 4-year summary of monitoring data for the major air pollutants compiled from this air monitoring station. From this data the following conclusions regarding air quality trends can be drawn:

a. Photochemical smog (ozone) levels rarely exceed standards. All state and federal ozone standards have been exceeded less than 1% of all days in the past 4 years. Measurements from more recent years demonstrate progressively improved ozone levels in the area. Measurements for the most recent year, 2021, show no violations.

b. Respirable dust (PM_{10}) levels occasionally exceed the state standard on approximately 2% of measured days. The less stringent federal PM_{10} standard has not been exceeded in the last 4 years.

c. The federal ultra-fine particulate ($PM_{2.5}$) standard of 35 $\mu g/m^3$ has been exceeded on less than 1% of measurement days in the last 4 years.

d. More localized pollutants such as carbon monoxide and nitrogen oxides are very low near the Project site. There is substantial excess dispersive capacity to accommodate localized vehicular air pollutants such as NO_X or CO without any threat of violating applicable AAQS.

Although complete attainment of every clean air standard is not yet imminent, extrapolation of the steady improvement trend suggests that such attainment could occur within the reasonably near future.

Table 3. Air Quality Monitoring Summary (2018-2021)

Pollutant/Standard	Number of Days Standards Were Exceeded, and Maximum Levels During Such Violations			
	2018	2019	2020	2021
Ozone				
1-Hour > 0.09 ppm (S)	1	1	6	0
8-Hour > 0.07 ppm (S)	1	1	15	0
8- Hour > 0.075 ppm (F)	0	1	4	0
Max. 1-Hour Conc. (ppm)	0.112	0.096	0.142	0.103
Max. 8-Hour Conc. (ppm)	0.071	0.082	0.097	0.068
Carbon Monoxide				
8- Hour > 9. ppm (S,F)	0	0	0	0
Max 8-hour Conc. (ppm)	1.9	1.3	1.7	1.5
Nitrogen Dioxide				
1-Hour > 0.18 ppm (S)	0	0	0	0
Max. 1-Hour Conc. (ppm)	0.066	0.059	0.071	0.067
Inhalable Particulates (PM-10)				
24-hour > 50 $\mu g/m^3$ (S)	13/320	13/364	13/329	12/361
24-hour > 150 $\mu g/m^3$ (F)	0/320	0/364	0/329	0/361
Max. 24-Hr. Conc. ($\mu g/m^3$)	129.	127.	120.	115.
Ultra-Fine Particulates (PM-2.5)				
24-Hour > 35 $\mu g/m^3$ (F)	3/353	3/346	1/355	9/364
Max. 24-Hr. Conc. ($\mu g/m^3$)	54.1	36.1	41.4	54.4

S=State Standard
F=Federal Standard
Source: South Coast AQMD Air Monitoring Station Data Summary, Anaheim Station (3176)

Air Quality Planning

The Federal Clean Air Act (1977 Amendments) required that designated agencies in any area of the nation not meeting national clean air standards must prepare a plan demonstrating the steps that would bring the area into compliance with all national standards. The SCAB could not meet the deadlines for ozone, nitrogen dioxide, carbon monoxide, or PM_{10}. In the SCAB, the agencies designated by the governor to develop regional air quality plans are the SCAQMD and the Southern California Association of Governments (SCAG). The two agencies first adopted an Air Quality Management Plan (AQMP) in 1979 and revised it several times as earlier attainment forecasts were shown to be overly optimistic.

The 1990 Federal Clean Air Act Amendment (CAAA) required that all states with air-sheds with "serious" or worse ozone problems submit a revision to the State Implementation Plan (SIP). Amendments to the SIP have been proposed, revised, and approved over the past decade. The most current regional attainment emissions forecast for the ozone precursor NO_X and for

particulate matter are shown in Table 4. Substantial reductions in emissions of NO_X are forecast to continue throughout the next several decades. Unless new particulate control programs are implemented, PM_{10} and $PM_{2.5}$ are forecast to slightly increase.

Table 4. South Coast Air Basin Emissions Forecasts (Emissions in tons/day)

Pollutant	2020[b]	2025[b]	2030[b]
NO_X	289	266	257
VOC	393	393	391
PM_{10}	165	170	172
$PM_{2.5}$	68	70	71

[a] 2015 Base Year.
[b] With current emissions reduction programs and adopted growth forecasts.
Source: California Air Resources Board, 2013 Almanac of Air Quality

The Air Quality Management District (AQMD) adopted an updated clean air "blueprint" in August 2003. The 2003 Air Quality Management Plan (AQMP) was approved by the EPA in 2004. The AQMP outlined the air pollution measures needed to meet federal health-based standards for ozone by 2010 and for particulates (PM_{10}) by 2006. The 2003 AQMP was based upon the federal 1-hour ozone standard, which was revoked late in 2005 and replaced by an 8-hour federal standard. Because of the revocation of the hourly standard, a new air quality planning cycle was initiated.

With re-designation of the air basin as non-attainment for the 8-hour ozone standard, a new attainment plan was developed. This plan shifted most of the 1-hour ozone standard attainment strategies to the 8-hour standard. As previously noted, the attainment date was to "slip" from 2010 to 2021. The updated attainment plan also includes strategies for ultimately meeting the federal $PM_{2.5}$ standard.

Because projected attainment by 2021 requires control technologies that do not exist yet, the SCAQMD requested a voluntary "bump-up" from a "severe non-attainment" area to an "extreme non-attainment" designation for ozone. The extreme designation will allow a longer time period for these technologies to develop. If attainment cannot be demonstrated within the specified deadline without relying on "black-box" measures, EPA would have been required to impose sanctions on the region if the bump-up request had not been approved. In April 2010, the EPA approved the change in the non-attainment designation from "severe-17" to "extreme." This reclassification sets a later attainment deadline (2024), but also requires the air basin to adopt even more stringent emissions controls.

In other air quality attainment plan reviews, EPA has disapproved part of the SCAB $PM_{2.5}$ attainment plan included in the AQMP. EPA has stated that the current attainment plan relies on $PM_{2.5}$ control regulations that have not yet been approved or implemented. It is expected that a number of rules that are pending approval will remove the identified deficiencies. If these issues are not resolved within the next several years, federal funding sanctions for transportation projects could result. The 2012 AQMP included in the ARB submittal to EPA as part of the California State Implementation Plan (SIP) is expected to remedy identified $PM_{2.5}$ planning deficiencies.

The federal Clean Air Act requires that non-attainment air basins have EPA-approved attainment plans in place. This requirement includes the federal 1-hour ozone standard even though that standard was revoked almost 10 years ago. There was no approved attainment plan for the

1-hour federal standard at the time of revocation. Through a legal quirk, the SCAQMD is now required to develop an AQMP for the long-since revoked 1-hour federal ozone standard. Because the 2012 AQMP contains a number of control measures for the 8-hour ozone standard that are equally effective for 1-hour levels, the 2012 AQMP is believed to satisfy hourly attainment planning requirements.

AQMPs are required to be updated at regular intervals. The 2012 AQMP was adopted in early 2013. An updated 2016 AQMP was adopted by the SCAQMD Board in March 2017. The 2016 AQMD demonstrated the emissions reductions shown in Table 5 compared to the 2012 AQMP.

Table 5. Comparison of Emissions by Major Source Category from 2012 AQMP

Pollutant	Stationary Sources	Mobile Sources
VOC	-12%	-3%
NOx	-13%	-1%
SOx	-34%	-23%
$PM_{2.5}$	-9%	-7%

*source 2016 AQMP

SCAQMD has initiated the development of the 2022 AQMP to address the attainment of the 2015 8-hour ozone standard (70 ppb) for South Coast Air Basin and Coachella Valley that will focus on attaining the 70 ppb 8-hour ozone National Ambient Air Quality Standard (NAAQS) by 2037. On-road vehicles and off-road mobile sources represent the largest categories of NOx emissions. Accomplishment of attainment goals requires an approximate 70% reduction in NOx emissions. Large scale transition to zero emission technologies is a key strategy. To this end, Governor Executive Order N-79-20 requires 100% EV sales by 2035 for automobiles and short haul drayage trucks. A full transition to EV buses and heavy-duty long-haul trucks is required by 2045.

The proposed Project does not directly relate to the AQMP in that there are no specific air quality programs or regulations governing furniture showroom projects. Conformity with adopted plans, forecasts, and programs relative to population, housing, employment, and land use is the primary yardstick by which impact significance of planned growth is determined. However, the SCAQMD, while acknowledging that the AQMP is a growth-accommodating document, does not favor designating regional impacts as "less than significant" just because the proposed development is consistent with regional growth projections. Air quality impact significance for the proposed Project has therefore been analyzed on a project-specific basis.

Air Quality Impact Standards of Significance

Air quality impacts are considered "significant" if they cause clean air standards to be violated where they are currently met, or if they "substantially" contribute to an existing violation of standards. Any substantial emissions of air contaminants for which there is no safe exposure, or nuisance emissions such as dust or odors, would also be considered a significant impact.

Appendix G of the CEQA Guidelines offers the following five thresholds of air quality impact significance. A project would have a potentially significant impact if it:

a. Conflicts with or obstructs implementation of the applicable air quality plan.
b. Results in a cumulatively considerable net increase of any criteria pollutants for which the project region is non-attainment under an applicable federal or state ambient air quality standard.
c. Exposes sensitive receptors to substantial pollutant concentrations.
d. Creates objectionable odors affecting a substantial number of people.

Primary Pollutants

Air quality impacts generally occur on two scales of motion. Near an individual source of emissions or a collection of sources such as a crowded intersection or a parking lot, levels of those pollutants that are emitted in their already unhealthful form will be highest. Carbon monoxide (CO) is an example of such a pollutant. Primary pollutant impacts can generally be evaluated directly in comparison to appropriate clean air standards. Violations of these standards where they are currently met, or a measurable worsening of an existing or future violation, would be considered a significant impact. Many particulates, especially fugitive dust emissions, are also primary pollutants. Because of the non-attainment status of the South Coast Air Basin (SCAB) for PM_{10}, an aggressive dust control program is required to control fugitive dust during Project construction.

Secondary Pollutants

Many pollutants, however, require time to transform from a more benign form to a more unhealthful contaminant. Their impact occurs regionally far from the source. Their incremental regional impact is minute on an individual basis and cannot be quantified except through complex photochemical computer models. Analysis of significance of such emissions is based upon a specified amount of emissions (e.g., pounds, tons) even though there is no way to translate those emissions directly into a corresponding ambient air quality impact.

Because of the chemical complexity of primary versus secondary pollutants, the SCAQMD has designated significant emissions levels as surrogates for evaluating regional air quality impact significance independent of chemical transformation processes. Projects with daily emissions that exceed any of the emissions thresholds in Table 6 are recommended by the SCAQMD to be considered significant under CEQA guidelines.

Table 6. Daily Emissions Thresholds

Pollutant	Construction	Operations
ROG	75	55
NOx	100	55
CO	550	550
PM_{10}	150	150
$PM_{2.5}$	55	55
SOx	150	150
Lead	3	3

Source: SCAQMD CEQA Air Quality Handbook, November, 1993 Rev.

Additional Indicators

In its CEQA Handbook, the SCAQMD states that additional indicators should be used as screening criteria to determine the need for further analysis with respect to air quality. The additional indicators are as follows:

- Project could interfere with attainment of the federal or state ambient air quality standards by either violating or contributing to an existing or projected air quality violation.
- Project could result in population increases within the regional statistical area that would be in excess of that projected in the AQMP and in other than planned locations for the project's build-out year.
- Project could generate vehicle trips that cause a CO hot spot.

Therefore, the ArtiCraft Project has been evaluated using the five thresholds of air quality impact significance enumerated in the CEQA Guidelines.

Would the Project:

a) Conflict with or obstruct implementation of the applicable air quality plan?

No Impact

An Air Quality Impact Analysis dated August 28, 2023 (Appendix B) prepared by Gerrick Environmental analyzed the air quality impacts from the proposed ArtiCraft Cabinetry Facility project. Projects such as the proposed facility do not directly relate to the AQMP in that there are no specific air quality programs or regulations governing general development. Conformity with adopted plans, forecasts, and programs relative to population, housing, employment, and land use is the primary yardstick by which impact significance of planned growth is determined. The proposed facility is consistent with the City's adopted General Plan and forecasts relating to population, housing, employment and land use. Therefore, the ArtiCraft Cabinetry Facility project has no impact on implementation of and is not in conflict with the applicable air quality plan for the South Coast Air Basin.

b) Violate any air quality standard or contribute to an existing or projected air quality violation?

Less Than Significant with Mitigation Incorporated

The Project involves construction of a cabinetry showroom, warehouse, and offices facility in the City of Westminster.

Air quality impacts are considered "significant" if they cause clean air standards to be violated where they are currently met, or if they "substantially" contribute to an existing violation of standards. Any substantial emissions of air contaminants for which there is no safe exposure, or nuisance emissions such as dust or odors, would also be considered a significant impact. Impacts from the proposed Project are considered from construction activities as well as future operation of the facility.

Construction Activity Impacts

CalEEMod was developed by the SCAQMD to provide a model to calculate construction emissions and operational emissions from a variety of land use projects. It calculates

the daily maximum and annual average emissions for criteria pollutants, as well as total or annual greenhouse gas (GHG) emissions.

The Project entails the construction of a new 116,000 square foot storage and warehouse facility on a 232,201-square-foot lot. Approximately 10%, or 7,900 square feet, will be used for the office and showroom areas.

Project development will consist of the demolition of the existing building, parking lot, and landscaping. The new parking lot will provide a total of 147 stalls. In addition, approximately 7,700 square feet of hardscape is proposed.

Estimated construction emissions were modeled using CalEEMod2020.4.0 to identify maximum daily emissions for each pollutant during project construction. Construction was modeled in using default construction equipment and schedule for a project of this size as shown in Table 7.

Table 7. Construction Activity Equipment Fleet

Phase Name and Duration	Equipment
Demolition (20 days)	1 Concrete Saw
	2 Dozers
	3 Excavators
Grading (8 days)	1 Grader
	1 Dozer
	1 Excavator
	3 Loader/Backhoes
Construction (230 days)	1 Crane
	1 Generator Set
	3 Loader/Backhoes
	1 Welder
	3 Forklifts
Paving (18 days)	1 Paver
	2 Paving Equipment
	2 Mixers
	1 Loader/Backhoe
	2 Rollers

Utilizing the indicated equipment fleet and durations shown in Table 7 worst-case daily construction emissions were calculated by CalEEMod and are listed in Table 8.

Table 8. Construction Activity Emissions

	Maximum Daily Emissions (pounds/day)					
	ROG	NOx	CO	SO_2	PM_{10}	$PM_{2.5}$
2024	2.3	23.6	21.1	0.1	3.7	2.0
2025	65.1	13.7	18.7	0.0	1.6	0.8
SCAQMD Thresholds	75	100	550	150	150	55

Peak daily construction activity emissions are estimated be below SCAQMD CEQA thresholds without the need for added mitigation. The only model-based mitigation

measure applied for this project was watering exposed dirt surfaces at least three times per day to minimize the generation of fugitive dust generation during grading.

Construction equipment exhaust contains carcinogenic compounds within the diesel exhaust particulates. The toxicity of diesel exhaust is evaluated relative to a 24-hour per day, 365 days per year, 70-year lifetime exposure. The SCAQMD does not generally require the analysis of construction-related diesel emissions relative to health risk due to the short period for which the majority of diesel exhaust would occur. Health risk analyses are typically assessed over a 9-, 30-, or 70-year timeframe and not over a relatively brief construction period due to the lack of health risk associated with such a brief exposure.

Localized Significance Thresholds

The SCAQMD has developed analysis parameters to evaluate ambient air quality on a local level in addition to the more regional emissions-based thresholds of significance. These analysis elements are called Localized Significance Thresholds (LSTs). LSTs were developed in response to Governing Board's Environmental Justice Enhancement Initiative 1-4, and the LST methodology was provisionally adopted in October 2003 and formally approved by SCAQMD's Mobile Source Committee in February 2005.

Use of an LST analysis for a project is optional. For the proposed Project, the primary source of possible LST impact would be during construction. LSTs are applicable for a sensitive receptor, where it is possible that an individual could remain for 24 hours such as a residence, a hospital, or a convalescent facility.

LSTs are only applicable to the following criteria pollutants: oxides of nitrogen (NO_X), carbon monoxide (CO), and particulate matter (PM_{10} and $PM_{2.5}$). LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard, and are developed based on the ambient concentrations of that pollutant for each source receptor area and distance to the nearest sensitive receptor.

LST screening tables are available for 25-, 50-, 100-, 200- and 500-meter source-receptor distances. The closest residences are more than 300 feet to the east of the closest project perimeter, which are accessed from Cascade Lane. There are also residences on the west side of the freeway that are similarly approximately 300 feet from the Project perimeter. Therefore, the 100-meter distance was modeled.

The SCAQMD has issued guidance on applying CalEEMod to LSTs. LST pollutant screening level concentration data is currently published for 1-, 2-, and 5-acre sites for varying distances. For this project, the most stringent thresholds for a 1-acre site were applied.

The thresholds and emissions in Table 9 are therefore determined (pounds per day).

Table 9. LST and Project Emissions

LST 1 acre/100 meters North Coastal Orange County	CO	NOx	PM_{10}	$PM_{2.5}$
	(pounds per day)			
LST Thresholds	1,090	108	27	9
Max On-Site Emissions				
2024	21	24	4	2
2025	19	14	2	1

CalEEMod Output in Appendix

LSTs were compared to the maximum daily construction activities. As seen in Table 9, with active dust suppression, mitigated emissions meet the LST for construction thresholds. LST impacts are less-than-significant.

Therefore, the following construction mitigation measure is necessary to ensure LST thresholds are maintained below significance thresholds:

Mitigation Measure 2– Exposed surfaces will be watered at least two times per day during grading activities.

LST impacts are less than significant with the application of Mitigation Measure 2.

Operational Impacts

The proposed project will generate 61 net new daily trip ends. Operational emissions were calculated for an assumed full occupancy year of 2025. The operational impacts are shown in Table 10.

Table 10. Proposed Uses Daily Operational Impacts

Source	Operational Emissions (pounds per day)					
	ROG	NOx	CO	SO_2	PM_{10}	$PM_{2.5}$
Area	2.8	0.0	0.0	0.0	0.0	0.0
Energy	0.1	0.6	0.6	0.0	0.6	0.1
Mobile	0.2	0.3	2.5	0.0	0.1	0.1
Total	**3.1**	**0.9**	**3.1**	**0.0**	**0.7**	**0.2**
SCAQMD Threshold	55	55	550	150	150	55
Exceeds Threshold?	No	No	No	No	No	No

Source: CalEEMod Output in Appendix

As shown, operational emissions will not exceed applicable SCAQMD operational emissions CEQA thresholds of significance.

Construction Emissions Minimization

Construction activities are not anticipated to cause dust emissions to exceed SCAQMD CEQA thresholds. Nevertheless, mitigation through enhanced dust control measures is recommended for use because of the non-attainment status of the air basin. Mitigation measures are recommended to further reduce short-term impacts associated with

construction emissions in compliance with the SCAQMD. Therefore, no impacts to this topical area would result from the Project with implementation of the following recommended mitigation measures.

Similarly, ozone precursor emissions (ROG and NO_X) are calculated to be below SCAQMD CEQA thresholds. However, because of the regional non-attainment for photochemical smog, the use of reasonably available control measures for diesel exhaust is recommended. Combustion emissions control options should also be included:

Mitigation Measure 3 – During construction activities, the contractor shall ensure that measures are complied with to reduce short-term (construction) air quality impacts associated with the Project: a) apply soil stabilizers or moisten inactive disturbed areas (such as covering stock piles with tarps) to meet South Coast Air Quality Management District (SCAQMD) Rule 403 (Fugitive Dust); b) provide water spray during loading and unloading of earthen materials; c) apply water two times daily, or non-toxic soil stabilizers according to manufacturer's specifications, to all disturbed unpaved surfaces; d) minimize in-out traffic from construction zone; e) cover all trucks hauling dirt, sand, or loose material or require all trucks to maintain at least two feet of freeboard; f) sweep streets daily if visible soil material is carried out from the construction site; g) utilize well-tuned off-road construction equipment; h) establish a preference for contractors using Tier 3 or better heavy equipment; and i) enforce 5-minute idling limits both on-road trucks and off-road equipment.

Ongoing operational emissions are not anticipated to exceed their respective SCAQMD significance thresholds. Therefore, there will be no impact from operational activities ongoing with the Project.

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?

Less Than Significant Impact

See response to Item 3.b) above and recommend mitigation in compliance with the SCAQMD for short-term construction-related impacts. The Project site is located in the South Coast Air Basin, which is a designated non-attainment area. The Project does not represent significant growth beyond that already previously evaluated and forecasted for air quality cumulative impacts of basin-wide growth and development. Therefore, the Project will result in less than significant impacts cumulatively to air quality.

d) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact

See response to Item 3.b) above and recommend mitigation in compliance with the SCAQMD for short-term construction-related impacts. The cabinetry showroom, warehouse, and offices facility project will involve minimal grading, because the site is already flat. Proposed Mitigation Measure 3 (previously presented in Section 3.b) will significantly reduce impacts

from construction activities. Therefore, it is not anticipated that the Project will result in any significant impacts to sensitive receptors.

e) Create objectionable odors affecting a substantial number of people?

Less Than Significant Impact

The cabinetry showroom, warehouse and offices facility will not create objectionable odors. Therefore, the proposed Project will not result in any significant impacts of objectionable odors affecting a substantial number of people.

4. Biological Resources

The Biological Resources section analyzes the potential impact of the Project on wildlife and plant resources within the Project area. The Project site is being developed in an existing industrial area that abuts an elementary school, residences and the 405 Freeway.

Would the Project:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

No Impact

The site is located in an area developed with urban land uses, including primarily industrial uses, that abut residential uses, an elementary school, and roads. The site does not contain any sensitive habitat or wildlife resources. However, Mitigation Measure 4 is proposed in Item 4.d) that will assure no migratory birds are endangered by the elimination of trees or landscaping on the existing site. Therefore, the Project will not result in any impacts to biological resources.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

No Impact

See response to Item 4.a) above. The Project site does not contain any riparian habitat or sensitive natural communities. Therefore, no impacts to riparian or other sensitive natural communities are anticipated.

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact

See response to Item 4.a) above. The site is located in an urbanized area of the City and does not contain wetlands. The Project does not propose any activities that would potentially impact wetlands. There are no direct removals, filling, or hydrological interruptions proposed as part of the Project. Therefore, no impacts to wetlands will result from the proposed Project.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less Than Significant With Mitigation Incorporated

The Project site contains some trees and large shrubs that will be removed per the site plan. While the trees themselves do not represent substantial biological resources and will be replaced by other kinds of trees on the site per the landscaping plan, the trees and shrubs could contain migratory bird nests that are protected by the federal Migratory Bird Treaty Act of 1918 when occupied. Therefore, prior to removing the trees and large shrubs, a certified biologist should determine that there are no active nests in the trees. Therefore, the Project will not conflict with any policies or ordinance pertaining to biological resources.

Mitigation Measure 4 – If tree and shrub clearing is scheduled to begin during the nesting season (February 1 to September 15), a qualified biologist shall be retained to survey the trees to determine the presence of any bird nests in the trees prior to their removal. If nests are identified, removal of the trees should not proceed until after the nesting season concludes on September 15.

e) Conflict with any local policies or ordinance protecting biological resources, such as a tree preservation policy or ordinance?

No Impact

See response to Item 4.d) above. The Project site does contain some trees that will be removed as part of the Project plan and replaced with other trees. Therefore, with mitigation proposed, the Project will not conflict with any policies or ordinance pertaining to biological resources.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact

See responses to Items 4.a) and 4.e) above. The site is located in an urbanized area. The Project site is not included in an adopted Habitat Conservation Plan or a Natural Community Conservation Plan. The development of the property does not involve any activities that would impact biological resources that would be subject to a conservation plan.

5. Cultural Resources

This section evaluates the impact of the Project on cultural resources within the City of Westminster. Cultural resources include paleontological, archaeological, and historical buildings as well as Native American artifacts and remains. The Project site is a warehouse property that has previously been developed.

Would the Project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?

No Impact

The City's General Plan EIR included a complete evaluation of cultural resources citywide.[1] The Project site is surrounded by urban uses, including industrial and residential uses and an elementary school. The site does not contain any historical resources (including historic structures). Therefore, it is anticipated that the Project will not have any impacts on cultural (including historical) resources.

b) Cause a substantial adverse change in the significance of an archeological resource pursuant to Section 15064.5?

No Impact

See response to Item 5.a) above. The Project is proposed at a property that is located in an area already developed with industrial uses that are adjacent to residential properties and an elementary school. The proposed Project will require minimal grading due to the existing conditions of the land and the nature of the Project. Therefore, it is not anticipated that the Project will result in any significant impact to archaeological resources.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

No Impact

See responses to Items 5.a) and 5.b) above. The General Plan EIR identified that no paleontological resources are known within the City. Therefore, it is not anticipated that the Project will result in any direct or indirect impacts to unique paleontological resources or geologic features due to the type of Project.

d) Disturb any human remains, including those interred outside formal cemeteries?

No Impact

See responses to Items 5.a) and 5.b) above. The Project site is located in an urbanized area with adjacent developed uses (residential and an elementary school). Due to the developed condition of the property and its surroundings, it is not anticipated that the Project would result in any impacts relative to disturbance of human remains, including those interred outside formal cemeteries.

1 City of Westminster General Plan/EIR, July 2016, page 5.3-1 through 5.3-18

6. Energy

The Energy section evaluates whether the Project results in wasteful energy consumption during construction or operation and whether the Project conflicts with state or local plans for renewable energy.

Would the Project:

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

No Impact

The proposed Project, a cabinetry showroom, warehouse, and offices facility, will be designed to meet contemporary standards for energy efficiency and conservation of energy resources. It is not anticipated that Project construction will result in wasteful, inefficient, or unnecessary consumption of energy resources. Therefore, there is no impact from the Project.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impact

The proposed Project will not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. The Project is designed to maximize energy efficiency. Therefore, there is no impact.

7. Geology and Soils

The Geology and Soils section evaluates the potential impacts of Southern California's seismic events on the Project. This section also evaluates the Project site's susceptibility to geologic events or factors. The analysis is based primarily on the City's General Plan and regional mapping of fault lines and historical earthquake information. The analysis includes the range of geotechnical events that could impact the Project site.

Would the Project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?

Less Than Significant Impact

The City's General Plan Public Health and Safety section includes an evaluation of public safety that addresses geology and soils of the City and is herein incorporated by reference.[2]

The City, as well as most of Southern California, is located in a region of historic seismic activity. There are no known active fault systems located within the limits of the City. Therefore, no part of the City has been delineated on the Alquist-Priolo Earthquake Fault

2 City of Westminster General Plan, September 2016, pages 8-8 through 8-14.

Zone. However, there are active or potential active fault systems that can affect the Westminster area. The principal seismic hazard which could affect the site is ground shaking resulting from an earthquake occurring along any of the major active faults in Southern California.

The most significant known active faults include the San Andreas, Newport-Inglewood, Whittier, San Fernando, Sierra Madre, and Verdugo faults. The closest known active fault to the Project site includes Newport Inglewood (LA Basin) fault which is approximately 6 miles from the ArtiCraft Cabinetry Facility project site. The San Joaquin Hills blind thrust and Elysian Park thrust faults are located in the subsurface with no mapped fault trace at the ground surface, and have been estimated to be approximately 7 and 15 miles from the site, respectively.

Surface rupture occurs when there is a break in ground surface during or as a consequence of seismic activity. As indicated previously, the site is not located within an Alquist-Priolo zone nor are there any identified faults near or within the Project site property. Therefore, potential for surface rupture on-site is considered very low due to the lack of known active faults on-site.

The potential for damage resulting from seismic-related events exists within the City as it does throughout Southern California. Seismic hazards include ground shaking, ground failure, ground displacement, tsunamis, and seiches. The site is located in an area of the City that is designated as Moderate Liquefaction Potential per the City's General Plan. The site is also located in a liquefaction hazard area, based on the California Department of Conservation's Official Maps of Seismic Hazard Zones Newport Beach-Quadrangle (1998).

The site is expected to be subject to moderate to severe ground shaking from a regional seismic event within the life of the development. However, the structures will be constructed using current building codes designed for earthquake and seismic protection which minimize the impact of seismic-related events on the Project.

The topography of the site is relatively flat. The site is not located in an area of generally unique geologic or physical features.

ii) Strong seismic ground shaking?

Less Than Significant Impact

See response to Item 7.a)i) above. Due to the nature of the Project, all potential impacts relative to geology and soils are less than significant.

iii) Seismic-related ground failure, including liquefaction?

Less Than Significant Impact

See response to Item 7.a)i) above. The site is located in an area of the City that is designated as Moderate Liquefaction Potential per the City's General Plan (Figure 8-2, page 8-13). The site is also located in a liquefaction hazard area, based on the California Department of Conservation's Official Maps of Seismic Hazard Zones Newport Beach-Quadrangle (1998). However, the Project is not located in a High Liquefaction Potential Zone. Also, the cabinetry showroom, warehouse, and offices facility will be constructed utilizing contemporary

building codes with seismic standards. Therefore, all potential impacts relative to geology and soils are at a less than significant level.

iv) Landslides?

No Impact

The property is flat. The site is not subject to potential impacts associated with landslides. Therefore, it is not anticipated that Project activities will result in any impacts associated with landslides.

b) Result in substantial soil erosion or the loss of topsoil?

No Impact

The Project will not result in any impacts to soil erosion or loss of topsoil. The site is relatively flat in topography and will not require extensive grading. Therefore, there are no impacts from the Project in the area of potential loss of topsoil.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less Than Significant Impact

See response to Item 7.a)i) above. The geology of the site and soil conditions are consistent with most properties in the City of Westminster. Due to the nature of the Project, all potential impacts relative to geology and soils are at a less than significant level.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

Less Than Significant Impact

See response to Item 7.a)i), which addresses geology and soils. The Project, construction of a new elderly care residential facility, will involve minimal grading. The building foundation will be designed for compatibility with expansive soils. All potential impacts relative to geology and soils will be at a less than significant level.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact

The Project site will be served by the local sewer and water system; as such, the Project does not involve issues pertaining to soils incapable of supporting septic tanks or alternative wastewater disposal systems.

8. Greenhouse Gas Emissions

The Greenhouse Gas Emissions section analyzes the impact the proposed Project would have on emissions suspected in the issue of climate change around the world. The Project was analyzed within the Air Quality and GHG Impact Analysis conducted by Giroux & Associates and included as Appendix B of this document.

Would the Project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less Than Significant Impact

"Greenhouse gases" (so called because of their role in trapping heat near the surface of the earth) emitted by human activity are implicated in global climate change, commonly referred to as "global warming." These greenhouse gases contribute to an increase in the temperature of the earth's atmosphere by transparency to short wavelength visible sunlight, but near opacity to outgoing terrestrial long wavelength heat radiation. The principal greenhouse gases (GHGs) are carbon dioxide, methane, nitrous oxide, ozone, and water vapor. Fossil fuel consumption in the transportation sector (on-road motor vehicles, off-highway mobile sources, and aircraft) is the single largest source of GHG emissions, accounting for approximately one-half of GHG emissions globally. Industrial and commercial sources are the second largest contributors of GHG emissions with about one-fourth of total emissions.

California has passed several bills, and the Governor has signed at least three executive orders, regarding greenhouse gases. GHG statues and executive orders (EO) include AB 32, SB 1368, SB 375, EO S-03-05, EO S-20-06 and EO S-01-07.

AB 32 is one of the most significant pieces of environmental legislation that California has adopted. Among other things, it is designed to maintain California's reputation as a "national and international leader on energy conservation and environmental stewardship." It will have wide-ranging effects on California businesses and lifestyles, as well as far reaching effects on other states and countries. A unique aspect of AB 32, beyond its broad and wide-ranging mandatory provisions and dramatic GHG reductions, are the short time frames within which it must be implemented. Major components of the AB 32 include:

- Require the monitoring and reporting of GHG emissions beginning with sources or categories of sources that contribute the most to statewide emissions.
- Requires immediate "early action" control programs on the most readily controlled GHG sources.
- Mandates that by 2020, California's GHG emissions be reduced to 1990 levels.
- Forces an overall reduction of GHG gases in California by 25% to 40%, from business as usual, to be achieved by 2020.
- Must complement efforts to achieve and maintain federal and state ambient air quality standards and to reduce toxic air contaminants.

Statewide, the framework for developing the implementing regulations for AB 32 is under way. Maximum GHG reductions are expected to derive from increased vehicle fuel efficiency, from greater use of renewable energy, and from increased structural energy efficiency.

Additionally, through the California Climate Action Registry (CCAR, now called the Climate Action Reserve), general and industry-specific protocols for assessing and reporting GHG emissions have been developed. GHG sources are categorized into direct sources (i.e., company owned) and indirect sources (i.e., not company owned). Direct sources include combustion emissions from on-road and off-road mobile sources, and fugitive emissions. Indirect sources include off-site electricity generation and non-company owned mobile sources.

Thresholds of Significance

In response to the requirements of SB97, the State Resources Agency developed guidelines for the treatment of GHG emissions under CEQA. These new guidelines became state laws as part of Title 14 of the *California Code of Regulations* in March 2010. The CEQA Appendix G Guidelines were modified to include GHG as a required analysis element. A project would have a potentially significant impact if it:

- Generates GHG emissions, directly or indirectly, that may have a significant impact on the environment, or
- Conflicts with an applicable plan, policy or regulation adopted to reduce GHG emissions.

Section 15064.4 of the CEQA Guidelines specifies how significance of GHG emissions is to be evaluated. The process is broken down into quantification of Project-related GHG emissions, making a determination of significance, and specification of any appropriate mitigation if impacts are found to be potentially significant. At each of these steps, the new GHG guidelines afford the lead agency with substantial flexibility.

Emissions identification may be quantitative, qualitative, or based on performance standards. CEQA Guidelines allow the lead agency to "select the model or methodology it considers most appropriate." The most common practice for transportation/combustion GHG emissions quantification is to use a computer model such as CalEEMod, as was used in the ensuing analysis.

The significance of those emissions then must be evaluated; the selection of a threshold of significance must take into consideration what level of GHG emissions would be cumulatively considerable. The Guidelines are clear that they do not support a zero net emissions threshold. If the lead agency does not have sufficient expertise in evaluating GHG impacts, it may rely on thresholds adopted by an agency with greater expertise.

On December 5, 2008 the SCAQMD Governing Board adopted an Interim quantitative GHG Significance Threshold for industrial projects where the SCAQMD is the lead agency (e.g., stationary source permit projects, rules, plans) of 10,000 metric tons (MT) CO_2 equivalent per year. In September 2010, the SCAQMD CEQA Significance Thresholds GHG Working Group released revisions that recommended a threshold of 3,000 MT CO_2e for residential use projects. This 3,000 MT per year recommendation has been used as a guideline for this analysis. In the absence of an adopted numerical threshold of significance, Project-related GHG emissions in excess of the guideline level are presumed to trigger a requirement for enhanced GHG reduction at the project level.

Construction Activity GHG Emissions

A greenhouse gas impact analysis was conducted by Gerrick Environmental (dated August 28, 2023) and is included within Appendix B of this document. The Project is assumed to be built over two calendar years. During Project construction, the CalEEMod 2016.3.2 computer model predicts that the construction activities will generate the annual CO_2e emissions identified in Table 11.

Table 11. Construction Emissions (Metric Tons CO_2e)

	CO_2e
Year 2024	467.4
Year 2025	21.5
Total	489.0
Amortized	**16.3**
CalEEMod Output provided in appendix	

SCAQMD GHG emissions policy from construction activities is to amortize emissions over a 30-year lifetime. The amortized level is also provided. GHG impacts from construction are considered individually less than significant.

Project Operational GHG Emissions

The input assumptions for operational GHG emissions calculations, and the GHG conversion from consumption to annual regional CO_2e emissions are summarized in the CalEEMod 2013.2.2 output files found in the appendix of this report.

The total operational and annualized construction emissions for the proposed Project are identified in Table 12. The Project GHG emissions are considered less-than-significant.

Table 12. Operational Emissions

Consumption Source	**Metric Tons CO_2e**
Area Sources	0.0
Energy Utilization	322.1
Mobile Source	101.6
Solid Waste Generation	76.8
Water Consumption	103.1
Construction	16.3
Total	**619.9**
Guideline Threshold	3,000

Total Project GHG emissions are substantially below the proposed significance threshold of 3,000 MT suggested by the SCAQMD. Hence, the Project will not result in generation of a significant level of greenhouse gases.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less Than Significant Impact

The City of Westminster adopted an Energy Action Plan in 2018. The plan outlined the City's intent for the following long-term goals:

- Reduce greenhouse gas (GHG) emissions statewide by more than 26 percent by 2025 compared to 2005 levels.
- Reduce carbon dioxide emissions from the electricity sector by 25 percent by 2025 compared to 2012 levels.
- Reduce carbon dioxide emissions from the electricity sector by 35 percent by 2030 compared to 2012 levels.
- Achieve electricity savings of 2 percent of total electricity sales per year by 2020 through cost effective energy efficiency.

The Project will comply with GHG savings objectives because of the following project design features. Several are related to transportation which typically account for 37% of total GHG emissions.

- The Project will result in less than significant transportation impacts because the trip generation rate associated with the Project is low and the Project does not generate much vehicle miles traveled (VMT) because it is located within one-half mile of a high -quality transit corridor, Beach Boulevard.
- The Project is located within one thousand feet of a Bolsa Avenue (Route 64) transit stop that connects to Beach Boulevard, which is considered a high-quality transit corridor.
- Projects within one-half mile of an existing major transit stop or a stop along an existing high-quality transit corridor should be presumed to cause a less than significant transportation impact.
- The proposed drainage system will route stormwater from the building roof and new impervious areas will be routed to a bio-filtration basin on the southwesterly portion of the site before the water enters the public storm drain system.
- The Project incorporates an efficient irrigation system and landscape design, water conservation (no grass turf areas), smart controllers and source control to reduce the amount of water used on the site for irrigation.
- The trash enclosure is covered and walled in to reduce the introduction of pollution into stormwater runoff.
- The Project has been designed to reduce the generation of stormwater runoff and incorporates biotreatment to treat stormwater runoff prior to discharge into the public storm sewer system.
- The landscape design provides plant material to screen utility connections as much as possible given the requirements for connection locations by the utility companies and agencies.

In addition, the Project results in GHG emissions below the recommended SCAQMD 3,000 metric ton threshold. Therefore, the Project would not conflict with any applicable plan, policy, or regulation to reduce GHG emissions.

9. Hazards and Hazardous Materials

The Hazards and Hazardous Materials section evaluates any potential impacts from hazardous substances caused by the Project. This section analyzes any potential impacts from demolition of existing structures on the Project site and use of hazardous substances involved in construction activities such as storage of gasoline or oils related to construction equipment.

Would the Project:

a) Create a significant hazard to the public or the environment through routine transport, use, or disposal of hazardous materials?

No Impact

The proposed Project will be built at 15172 Goldenwest Circle in the City of Westminster. The Project, a cabinetry showroom, warehouse, and offices facility, does not generate the routine transport, use or disposal of hazardous materials that could create a significant hazard to the public or the environment. Therefore, there is no impact to this issue area.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less Than Significant Impact

See response to 9.a) above. The Project will not be a generator of hazardous materials. A Phase 1 study was completed on May 11, 2018 that examined the property for any hazardous materials issues that might have accumulated on the property during its nearly 60-year use as agricultural property before the construction of the existing warehouse on the property in 1968. The Phase 1 Study found that no hazardous materials were identified that exist on the property today.

No significant hazardous materials would be stored or handled on-site associated with the operational characteristics of the Project after it is developed.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less Than Significant Impact with Mitigation Incorporated

The John F. Land School is within one-quarter mile of the project site. The presence of sensitive receptors (the school and residences) in proximity to the Project site necessitates mitigation measures for construction–related activities. The construction of the Project will include short-term use of construction equipment that will emit emissions, and the use of construction material, such as paint, including hazardous materials. The operations of the proposed Project, however, will not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste. Additionally, in relation to construction activities, the proper use and maintenance of equipment, along with the use of general common sense, greatly reduces the potential for contamination. Additionally, any temporary

storage of construction-related materials or hazardous substances will be located away from the sensitive receptors. A mitigation measure is presented below that addresses hazardous materials related to short-term construction activities.

Mitigation Measure 5 – During construction of the Project the applicant shall ensure that grading and building plans include the following measures and that the measures shall be followed by the construction contractor and crew: 1) the storage of hazardous materials, chemicals, fuels, and oils and fueling of construction equipment shall be a minimum of 45 meters (150 feet) from any drainage, water supply, or other water features; 2) hazardous materials stored on-site shall be stored in a neat, orderly manner in appropriate containers and, if possible, under a roof or other enclosure; 3) whenever possible, all of a product shall be used up before disposal of its container; 4) if surplus product must be disposed of, the manufacturer's or the local and state recommended methods for disposal shall be followed; 5) spills shall be contained and cleaned up immediately after discovery. Manufacturer's methods for spill cleanup of a material shall be followed as described on the Material Safety Data Sheets (MSDS) for each product.

d) Be located on a site which is included on a list of hazardous materials sites which complied pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Less Than Significant Impact

The ArtiCraft Cabinetry Facility project site is not on a list of hazardous sites.[3] However, two sites near the Project (on Goldenwest Circle northwest of the Project site and Bolsa Avenue north of the site) have been assessed for leaking underground storage tanks (LUST). The sites have been completed for cleanup and the cases are closed. Therefore, the Project site presents no issues to the proposed development, and impacts to this issue area are less than significant.

e) For a project within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

No Impact

The Project site is not located within 2 miles of a public airport or public use airport. Therefore, the Project is not anticipated to have any impacts associated with a public airport including noise or safety hazards or the safety of people working within the airport environs.

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

No Impact

See response to Item 9.e) above. Additionally, the Project would not result in a safety hazard for people residing in the Project area. Therefore, there are no impacts to this topical area from the Project.

3 http://geotracker.waterboards.ca.gov Phase 1 Environmental Site Assessment Report

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Impact

The Project will not result in any impacts to an adopted emergency response plan or an emergency evacuation plan.

a) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires? This should be sub paragraph h).

No Impact

The project is located in an industrial area of the City. It is not adjacent to wildland areas that might present a wildland fire risk. Therefore, there is no impact in this issue area.

10. Hydrology and Water Quality

The Hydrology and Water Quality section evaluates the impact of the proposed Project on water quality standards or waste discharge requirements. The section also considers any impacts to the drainage of the property and any potential impacts from storm water run-off to streams, rivers, or the Pacific Ocean.

Would the Project:

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Less Than Significant Impact with Mitigation Incorporated

The City of Westminster (and the Project site) is located in the Santa Ana River Basin. The Project area is under the jurisdiction of the California Regional Water Quality Control Board (RWQCB) Santa Ana Region for issues related to water quality. The Santa Ana Region of the RWQCB is nearly 3,000 square miles in size, with a population of almost five million people. The Santa Ana Region includes cities and municipalities in a portion of Orange County (includes Westminster), and Riverside and San Bernardino counties. Each of the nine Regional Boards within California is required to adopt a Water Quality Control Plan, or Basin Plan. Each Basin Plan is designed to preserve and enhance water quality and protect the beneficial uses of all regional waters. Specifically, the Basin Plan: 1) designates beneficial uses for surface and ground waters; 2) sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the state's anti-degradation policy; 3) describes implementation programs to meet the objectives and protect the beneficial uses of all waters in the region; and 4) describes surveillance and monitoring activities to evaluate the effectiveness of the Basin Plan.

There is a Drainage Area Management Plan (DAMP) which is implemented by the cities (including Westminster), the County of Orange, and the Orange County Flood Control District. The DAMP was prepared in compliance with specific requirements of the National Pollutant Discharge Elimination System (NPDES) storm water program. The DAMP includes a wide range of Best Management Practices (BMPs) and control techniques to further reduce the amount of pollutants entering the storm drain system.

There are two primary types of source pollution: single-point source and nonpoint source pollution. Single-point sources are water pollutants that originate from a single-point source such as factories. Potential impacts to water quality associated with this type of Project (furniture storage and warehouse facilities) are nonpoint source pollution. Nonpoint source pollution includes materials and/or chemicals (e.g., motor oils/grease, paint, pet wastes, garden chemicals, litter) that may be washed into the storm drain system from various sources. Nonpoint source pollutants are typically washed into the storm drain system by rainwater and other means from streets, parking areas, residential neighborhoods, commercial/retail centers, construction sites. Since storm drains flow directly into the ocean without treatment, potential pollution can have an impact on water quality and wildlife. The Project site is currently developed. The proposed Project involves the demolition of an existing building and the construction of a new cabinetry showroom, warehouse, and offices facility at 15172 Goldenwest Circle in the City of Westminster. The proposed construction activities at the site will implement BMPs to reduce any potential impacts to water quality. However, post-development activities also have the potential to discharge contaminants into the storm water and urban runoff and into the municipal storm drain system of the City of Westminster.

A Preliminary Water Quality Management Plan dated January, 2022 was prepared for the Project by ITF & Associates, Inc. (Appendix D). Implementation of the Project will include compliance with the adopted Drainage Area Management Plan and adoption of Best Management Practices for handling any runoff from the proposed building or the parking areas and landscaping. Runoff from the new structure and impervious areas will be routed to a bio-filtration basin on the easterly portion of the Project site. The basin will include an overflow inlet which is proposed to connect to the existing storm drain inlet on the southerly side of the Project site. The storm drain then discharges to the adjacent Westminster Channel. That channel carries water to the west towards Bolsa Chica Channel. The BMPs are construction devices, procedures and methods that are implemented to reduce (or eliminate) source pollution (runoff). The Project will disturb more than one acre of the existing site, which requires the preparation of a Storm Water Pollution Prevention Plan (SWPPP). Additionally, a final Water Quality Management Plan will be prepared for the Project. Therefore, potential impacts to water quality will be reduced to less than significant level.

Mitigation Measure 6 – Prior to construction activities, a Storm Water Pollution Prevention Plan (SWPPP), and a Water Quality Management Plan (WQMP) will be prepared pursuant to the requirements of the Orange County DAMP and the State Regional Water Quality Control Board.

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

No Impact

See response to Item 10.a) above. The Project proposes to construct a cabinetry showroom, warehouse, and offices facility at 15172 Goldenwest Circle in the City of Westminster that will be served by the local sewer and water system.

The Project implementation at this site does not involve any construction activities (or long-term Project operations) that would impact groundwater. The proposed use at the site is also not anticipated to have any significant impacts relative to groundwater recharge. Therefore, it is not anticipated that the Project will have any significant impact on groundwater. The Project will not impact groundwater supplies or interfere with groundwater recharge.

c) Substantially alter existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

No Impact

See response to Item 10.a) above. The Project will not result in a significant change to the drainage pattern of the property. The development of the site will not alter the course of a stream or a river. The Project does not propose any alterations to the existing or planned storm drain system in Westminster. Therefore, it is not anticipated that the Project will result in any impacts to erosion or siltation on- or off-site.

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of a course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off-site?

No Impact

See response to Item 10.c) above. The Project does not involve any alteration of the existing and/or planned drainage system (pattern) of the area, including a substantial increase in the rate or amount of surface runoff. The proposed Project will slightly increase building coverage on the site but is not anticipated to create runoff beyond that which could be handled by the existing storm drain system. Proposed conditions on the development will mimic the existing drainage patterns as closely as possible. Therefore, the runoff is not anticipated to significantly increase in a manner that would have impacts relative to flooding on or offsite. Therefore, no impacts to this topical area will occur as a result of the Project.

e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Less Than Significant Impact

See responses to Items 10.a) and 10.c) above. The City of Westminster is primarily developed and contains an existing storm water drainage system. Local drainage facilities are maintained by the City of Westminster and provide for the collection of surface storm

water. Surface water is then deposited into regional drainage channels that are owned and maintained by the Orange County Flood Control District (OCFCD). The OCFCD plans its drainage facilities to accommodate a 100-year flood. The closest major channel (adjacent to the Project) to the site is the Westminster Channel (OCFCD channel). The Channel is just southwest of the Project site.

The Project is consistent with the capacity of the existing storm drain system in the City of Westminster and will be designed and constructed to comply with storm drain requirements. Additionally, the Project will not provide substantial additional sources of polluted runoff since the improvements will include bio-filtration of runoff from the site. Therefore, impacts associated with runoff will be less than significant as a result of the proposed Project.

f) Otherwise substantially degrade water quality?

No Impact

See responses to Items 10.a) and 10.c) above. The Project will comply with all existing requirements regarding water quality, and the Project does not propose any changes to the drainage of the facility. Therefore, it is not anticipated that the Project will substantially degrade water quality.

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

No Impact

The proposed Project includes the construction of a cabinetry showroom, warehouse, and offices facility and does not include housing. Additionally, the Project site is located within Zone X per the Federal Emergency Management Agency (FEMA) and on the Federal Flood Insurance Rate Map Panel No. 06059C-0251J (2009). The site is located outside the 100-year flood plain. Therefore, no impacts relative to the 100-year flood hazard will occur as a result of the proposed Project.

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

No Impact

See responses to Items 10.a), 10.c) and 10.g) above. The Project site is not located within a 100-year flood plain and therefore will not result in any potential impacts associated with a 100-year flood hazard area.

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

No Impact

See responses to Items 10.a), 10.c) and 10.g) above. Also, the Project does not involve exposing structures or people to potential flooding hazards.

j) Inundation by seiche, tsunami, or mudflow?

No Impact

See responses to Items 10.a) and 10.c) above. Therefore, impacts associated with inundation by seiche, tsunami, or mudflow would not be associated with the proposed Project.

k) Potentially impact storm water runoff from construction activities?

Less Than Significant Impact

See response to Item 10.a) above and Mitigation Measure 5 (page 40). The Project will utilize Best Management Practices (BMPs) and will comply with the Drainage Area Management Plan (DAMP). The DAMP is implemented by the cities (including Westminster), the County of Orange, and the Orange County Flood Control District. The DAMP was prepared in compliance with specific requirements of the National Pollutant Discharge Elimination System (NPDES) storm water program to reduce storm water pollution. The DAMP includes a wide range of BMPs and control techniques to further reduce the amount of pollutants entering the storm drain system. Therefore, potential impacts to storm water runoff from construction activity will be less than significant.

l) Potentially impact storm water runoff from Post-construction activities?

Less Than Significant Impact

See response to Item 10.a) above and Mitigation Measure 5 (page 40). The Project will construct a cabinetry showroom, warehouse, and offices facility at 15172 Goldenwest Circle in the City of Westminster. As such, the Project will not fundamentally change the existing storm water runoff from the facility. Therefore, there is a less than significant impact from post-construction activities.

m) Result in a potential for discharge of storm water pollutants (e.g., oil, grease, pesticides, nutrients, sediments, pathogens, etc.) from areas of material storage, vehicle or equipment fueling, vehicle or equipment maintenance (Including washing), waste handling, hazardous materials handling or storage, delivery areas, loading docks or other outdoor work areas?

Less Than Significant Impact

The Project is a cabinetry showroom, warehouse, and offices facility. The site will not include vehicle or equipment fueling and storage, waste handling, or hazardous materials handling. The Project requires a Water Quality Management Plan (WQMP) for the construction activities of the Project. Therefore, there is less than significant impact in this area.

n) Result in the potential for discharge of storm water to affect the beneficial uses of the receiving waters?

No Impact

The Project will not result in the potential for discharge of storm water that would affect the beneficial uses of the receiving waters. Therefore, there is no impact in this area.

o) Create the potential for significant changes in the flow velocity for volume of storm water runoff to cause environmental harm?

No Impact

There will be no increase in the flow velocity of storm water runoff as a result of this Project. The Project is construction of a cabinetry showroom, warehouse, and offices on a five-acre site that will channel runoff from the property into a proposed bio-filtration pond and the existing storm drain facilities. Therefore, there will be no impact in this issue area.

p) Create significant increases in erosion of the project site or surrounding areas?

No Impact

The Project site will be developed into a cabinetry showroom, warehouse, and offices facility. Storm drain facilities are already in place and designed to handle storm water runoff from the facility. Therefore, this Project will not increase erosion of the Project site or surrounding areas.

q) Include new or retrofitted stormwater treatment control Best Management Practices (BMPs), (e.g., water quality treatment basin, constructed treatment wetlands), the operation of which could result in significant environment effects?

Less Than Significant Impact

The Project involves construction of a cabinetry showroom, warehouse, and offices facility. The Project will provide a water quality treatment basin. The Project is located on a site that already includes storm drain facilities adjacent to it designed to handle runoff from the site to the street and into the storm water system. Therefore, impacts will be less than significant.

r) Is the project tributary to an already impaired water body, as listed on the Clean Water Act Section 303(d) list? If so, could the project result in an increase in any pollutant for which the water body is already impaired?

Less Than Significant Impact

The Project includes BMPs designed to protect storm water runoff during construction activities and post-construction operations and will not result in any increase in pollutants to any water body already impaired. Therefore, there is less than significant impact.

11. Land Use and Planning

The Land Use and Planning section evaluates any potential conflicts between the Project and the City's General Plan and Zoning Code or any habitat conservation plan established by the City.

Would the Project:

a) Physically divide an established community?

No Impact

The Project site consists of a building located at 15172 Goldenwest Circle in the City of Westminster. The Project proposes the construction of a 116,000 square-foot cabinetry showroom, warehouse, and offices facility on the site. The existing building would be

demolished. The Project is compatible with surrounding land uses. The Project will not physically divide an established community. Therefore, no significant impacts relative to this topic will result due to the implementation of the Project.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Less Than Significant Impact

The proposed Project site is currently zoned M-2 (Medium Industrial), and the General Plan Land Use Designation is Industrial. The zoning and land use designation allows the proposed project.

The site is 232,201 square feet and the proposed facility is 116,000 square feet. The proposed building will reach 44 feet on the corner where the offices will be. That will require a variance from the 35 feet maximum height allowed in the zoning code. Therefore, the Project will result in less than significant impacts relative to land use with approval of the variance.

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

No Impact

See responses to Items 11.a) and 11.b) above. The Project site is located in a developed area. The site is not subject to any applicable habitat conservation plan or natural community conservation plan (NCCP). Therefore, no impacts relative to this topic will occur as a result of implementation of the Project.

12. Mineral Resources

The Mineral Resources section analyzes any impacts the proposed Project might have on mineral resources within the City.

Would the Project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Impact

The Project site is not located within a known and/or designated mineral resources area. Therefore, no significant decrease of natural resources is anticipated as a result of the Project.

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

No Impact

See response to Item 12.a) above. The City's General Plan does not delineate any locally important mineral resource in the Project area. Therefore, the proposed Project will not result in any significant impacts to a locally important mineral resource.

13. Noise

The Noise section evaluates the impact the Project will have on the surrounding area and the impact of the noise environment on the Project itself. The analysis is based on the Noise Impact Analysis conducted by Gerrick Environmental dated October 2, 2023 and included as Appendix C of this document.

Would the Project result in:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less Than Significant With Mitigation Incorporated

A noise assessment of the Project was completed by Gerrick Environmental on October 2, 2023 to determine noise impacts from the proposed Project. The Noise Impact Analysis is included as Appendix C to this environmental document. The Project itself will not generate noise levels in excess of standards established in the General Plan. The existing noise environment of the site includes noise associated with the adjacent I-405 Freeway. There are no railroads or concentrated aircraft operations in the immediate vicinity of the Project site.

Baseline Noise Levels

Short term on-site noise measurements were made to document baseline levels in the Project area. These help to serve as a basis for projecting future noise exposure from the Project upon the surrounding community and noise from the community on the Project. Noise measurements were conducted on Wednesday, May 3, 2023, at approximately 2:00 p.m., at the location indicated below. A map showing this location is provided in Exhibit 7.

Table 13. Measured Noise Levels (dBA)

Location	Leq	L_{max}	L_{min}
On-site, adjacent to Goldenwest Circle	64.6	68.1	44.5

CNELs are typically a few decibels higher than mid-afternoon Leq readings. Therefore, although freeway noise is noticeable on site, the resultant CNEL would be less than 70 dBA. As shown in Table 13, the City of Westminster considers exposures of up to 70 dB CNEL as “clearly compatible” for siting commercial uses.

Even if future noise levels should increase by some increment, noise levels of up to 80 dBA CNEL are considered “normally compatible” for commercial setting. In a “normally compatible” noise category, new construction should be undertaken only after a noise analysis has been made and needed noise insulation features have been incorporated in the project design. Conventional construction with closed windows and access to a fresh air supply such as air conditioning will normally suffice.

Exhibit 7. Noise Meter Location

Noise Significance Criteria

According to the current CEQA Appendix G Guidelines, noise impacts are considered potentially significant if they result in:

1. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of a project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
2. Generation of excessive groundborne vibration or groundborne noise levels?
3. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

The terms "substantial" or "excessive" are not defined in most environmental compliance guidelines. Noise analysis methodology is accurate only to the nearest whole decibel and the human ear can only clearly detect changes of around 3 dBA; changes of less than 3 dBA, while audible under controlled circumstances, are not readily discernable in an outdoor environment. Thus, a change of 3 dBA is considered as a perceptible audible change. It would require a doubling of traffic to create a +3 dBA noise increase due to the logarithmic nature of noise calculations. The project is not within the vicinity of an airport.

Sources of Impact

Several characteristic noise sources are typically identified with general developments such as the proposed commercial project. Construction activities, especially heavy equipment, will create short-term noise increases near the project site. Upon completion, vehicular traffic on streets around the proposed project area may create a higher noise exposure. In already-developed areas, the added land use intensity associated with a single project only increases traffic incrementally on existing roadways. These noise impacts are often masked by the baseline, and often preclude perception of any substantial noise level increase. The project replaces an existing light industrial project and it is unlikely project impacts will be noticeable at off-site sensitive uses due to distance and intervening structures.

Sensitive Receptors

The closest residences are more than 300 feet to the southeast of the closest project perimeter and are accessed from Cascade Lane. With required setbacks, these homes are more than 350 feet from the closest proposed building façade. There is a proposed 50-foot-wide drive aisle along the perimeter closest to these homes along with an outdoor employee break area.

There are also residences on the west side of the freeway that are similarly approximately 300 feet from the project perimeter, but it is assumed that freeway noise would dominate the noise environment at these homes and dilute any project noise.

The loading docks are along the northern perimeter of the proposed building. The existing on-site structures will be demolished as part of construction.

Construction Noise Impacts

Temporary construction noise impacts vary markedly because the noise strength of construction equipment ranges widely as a function of the equipment used and its activity level. Short-term construction noise impacts tend to occur in discrete phases dominated by large, earth-moving equipment sources for demolition and grading. During construction and paving, equipment is generally less noisy.

In 2006, the Federal Highway Administration (FHWA) published the Roadway Construction Noise Model that includes a national database of construction equipment reference noise emissions levels. In addition, the database provides an acoustical usage factor to estimate the fraction of time each piece of construction equipment is operating at full power during a construction phase. The usage factor is a key input variable that is used to calculate the average Leq noise levels.

Table 15 identifies highest (Lmax) noise levels associated with each type of equipment identified for use, then adjusts this noise level for distance to the closest sensitive receptor and the extent of equipment usage (usage factor), which is represented as Leq. The table is organized by construction activity and equipment associated with each activity.

Quantitatively, the primary noise prediction equation is expressed as follows for the hourly average noise level (Leq) at distance D between the source and receiver (dBA):

Leq = Lmax @ 50' – 20 log (D/50') + 10log (U.F%/100) – I.L.(bar)
Where:
Lmax @ 50' is the published reference noise level at 50 feet
U.F.% is the usage factor for full power operation per hour
I.L.(bar) is the insertion loss for intervening barriers

For the proposed project, the construction fleet would include equipment such as shown in Table 14 which describes the noise level for each individual piece of equipment at a reference 50-foot distance.

Table 14. Construction Equipment Noise Levels

Phase Name and Duration	Equipment	Usage Factor[1]	Noise @ 50 feet (dB)[2]	Hourly Noise Level @ 50 feet (dB))
Demolition	Concrete Saw	20%	90	83
	Dozer	40%	85	82
	Loader/Backhoe	37%	78	74
Grading	Grader	40%	85	81
	Excavator	40%	85	81
	Dozer	40%	85	82
	Loader/Backhoe	37%	78	74
Construction	Crane	16%	81	73
	Loader/Backhoe	37%	78	74
	Welders	46%	74	71
	Generator Set	50%	81	78
	Forklift	20%	75	69
Paving	Paver	50%	77	74
	Mixer	40%	79	75
	Paving Equipment	40%	76	72
	Loader/Backhoe	37%	78	74
	Roller	20%	80	74

Source: FHWA's Roadway Construction Noise Model, 2006

1. Estimates the fraction of time each piece of equipment is operating at full power during a construction operation
2. The Lmax values presented are the actual measured values summarized in the Roadway Noise Model User Guide (FHWA 2006) unless the actual is unavailable in which case the equipment specifications were used.

Sensitive receptors are farther than the 50-foot reference distance. A block wall at the project perimeter would assist in blocking construction noise at the nearest uses. A -5 dBA noise credit was taken for the 6-foot wall.

At the indicated setback distances, the noise levels shown in Table 15 would likely be observed:

Table 15. Construction Noise Equipment Levels at Off-Site Sensitive Uses (dBA Leq)

Phase Name and Duration	Equipment	Exterior Noise at Closest Home to the East
Demolition	Concrete Saw	67
	Dozer	66
	Loader/Backhoe	58
Grading	Grader	65
	Excavator	65
	Dozer	66
	Loader/Backhoe	58
Construction	Crane	57
	Loader/Backhoe	58
	Welders	55
	Generator Set	62
	Forklift	53
Paving	Paver	58
	Mixer	59
	Paving Equipment	56
	Loader/Backhoe	58
	Roller	58

Older homes with single pane windows can reduce noise levels by 25 dB with the windows closed. However, most modern homes are constructed with dual paned windows, which can afford up to a 30-dB noise reduction with closed windows. This would mean that homes to the southeast would experience a daytime interior noise level of 28-37 dBA with a 5 dBA credit for the noise wall.

The potential for construction-related noise to adversely affect nearby residential receptors would depend on the location and proximity of construction activities to these receptors. Most construction equipment will be located at a much greater setback than the worst-case examples provided in Table 15.

In addition to adhering to the allowable hours of construction (7:00 a.m. and 8:00 p.m. on weekdays and Saturdays with no construction permitted on Sundays or federal holidays.) the following measures are recommended to ensure construction noise impacts are reduced to the lowest level possible:

- Locate stationary construction equipment away from the occupied residences; and
- Shut off construction equipment that is not in use; and
- Use electrical power to run air compressors and similar power tools.

These measures are included as conditions on any project construction permits and these limits will serve to minimize any adverse construction noise impact potential. With the generous setback to any sensitive use, it is unlikely that equipment noise will be noticeable. Construction noise impacts are minimized by time restrictions placed on permits which in addition to the recommended measures will minimize potential adverse noise impact.

Vehicular Noise Impacts

The project is expected to generate 61 new daily trips (ins and outs). The addition of only 61 trips over a 24-hour period would not cause a significant noise increase to existing traffic and therefore is considered less than significant.

Mitigation Measure 7 – The City and the general contractor shall be responsible for limiting construction activities to 7:00 a.m. to 8:00 p.m. Monday through Saturday. No noise-generating construction activities shall occur on Sundays and holidays.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact

Groundborne vibration occurs when heavy equipment travels over unpaved surfaces or when it is engaged in soil movement. The effects of ground-borne vibration include discernable movement of building floors, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. Vibration-related problems generally occur due to resonances in the structural components of a building because structures amplify groundborne vibration. Within the "soft" sedimentary surfaces of much of Southern California, ground vibration is quickly damped out. Groundborne vibration is almost never annoying to people who are outdoors.[4]

Groundborne vibrations from construction activities rarely reach levels that can damage structures. Because vibration is typically not an issue, very few jurisdictions have adopted vibration significance thresholds. Vibration thresholds have been adopted for major public works construction projects, but these relate mostly to structural protection (cracking foundations or stucco) rather than to human annoyance.

The vibration descriptor commonly used to determine structural damage is the peak particle velocity (ppv) which is defined as the maximum instantaneous positive or negative peak of the vibration signal, usually measured in in/sec. The range of such vibration is shown in Table 16.

Table 16. Human Response To Transient Vibration

Average Human Response	Peak Particle Velocity (in/sec)
Severe	2.000
Strongly perceptible	0.900
Distinctly perceptible	0.240
Barely perceptible	0.035

Source: Caltrans Transportation and Construction Vibration Guidance Manual, 2013.

4 Transit Noise and Vibration Impact Assessment; Federal Transit Administration, May 2006; https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Noise_and_Vibration_Manual.pdf.

Over the years, numerous vibration criteria and standards have been suggested by researchers, organizations, and governmental agencies. There are no Caltrans or Federal Highway Administration standards for vibration.

According to Caltrans, the threshold for structural vibration damage for modern structures is 0.5 in/sec for intermittent sources, which include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment. The American Association of State Highway and Transportation Officials (AASHTO) (1990) identifies maximum vibration levels for preventing damage to structures from intermittent construction or maintenance activities for residential buildings in good repair with gypsum board walls to be 0.4–0.5 in/sec. Although existing sensitive uses are at least 300 feet from the site and therefore would not be impacted by construction vibration, adjacent structures are potentially affected. The closest commercial structures are at least 80 feet from the project. Table 17 shows the predicted vibration levels generated by construction equipment at varying distances.

Table 17. Estimated Vibration Levels During Project Construction

Equipment	PPV at 10 ft (in/sec)	PPV at 15 ft (in/sec)	PPV at 25 ft (in/sec)	PPV at 40 ft (in/sec)	PPV at 50 ft (in/sec)
Large Bulldozer	0.352	0.191	0.089	0.044	0.031
Loaded trucks	0.300	0.163	0.076	0.037	0.027
Jackhammer	0.138	0.075	0.035	0.017	0.012
Small Bulldozer	0.012	0.006	0.003	0.001	<0.001

Source: FHWA Transit Noise and Vibration Impact Assessment

The calculation to determine PPV at a given distance is:

PPVdistance = PPVref*(25/D)^1.5

Where:

PPVdistance = the peak particle velocity in inches/second of the equipment adjusted for distance,
PPVref = the reference vibration level in inches/second at 25 feet, and
D = the distance from the equipment to the receiver.

The closest structure to the project is more than 50-feet to the north. As seen in Table 17, the predicted vibration levels generated by construction equipment such as a large bulldozer would be above levels that could create structural damage and likely lower than the barely perceptible threshold. There is virtually no risk of building damage.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Less Than Significant Impact

The main project component that could impact off-site uses are the loading docks which are located along the northern façade of the building. The closest residence with a line-of-sight to the docks is more than 600 feet away (near Bolsa Avenue). It is unlikely that truck noise will be audible at this home.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less Than Significant Impact

Short-term construction noise intrusion and vibration impacts will be limited by conditions on construction permits requiring compliance with the City of Westminster Noise Ordinance. The allowed hours of construction are 7:00 a.m. to 8:00 p.m. Monday through Saturday with no construction allowed on Sundays or any legal holiday. The closest sensitive use is 300-feet from the closest site perimeter.

Vibration impacts at the closest structure will be less-than-significant.

Project traffic noise impacts on area roadways will be less-than-significant.

Project noise at off-site receptors is unlikely to be audible because of the large separation distances.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact

The Project is not located within an airport environs land use plan and it is not within two miles of a public airport or public use airport. Therefore, there will be no impact on people working or residing in the Project area.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No Impact

The Project is not located within the vicinity of a private airstrip nor would the Project expose people to excessive noise levels. Therefore, there are no Project impacts associated with a private airstrip.

14. Population and Housing

The Population and Housing section considers the impact of the proposed Project on population growth within the Project area and whether the Project would displace substantial numbers of people necessitating construction of new housing elsewhere.

Would the Project:

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

No Impact

The Project involves the construction of a cabinetry showroom, warehouse, and offices facility. The Project is not anticipated to induce substantial population growth in the area.

Additionally, any employment increase would be in line with projections included in the build-out of the Westminster General Plan.

The property is located on a parcel with an existing building that would be demolished. No new or unanticipated significant infrastructure will be required to serve the Project. Therefore, due to the nature of the Project, it is not anticipated that the Project will induce substantial population growth in the area, either directly or indirectly.

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

No Impact

The Project is located in an industrial area of the City. The Project does not displace existing housing. Therefore, the Project will not displace substantial numbers of existing housing.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No Impact

See response to Item 14.b) above. The Project will not result in the displacement of substantial numbers of people and/or housing. The Project will not displace substantial numbers of people.

15. Public Services

The Public Services section evaluates the impact of the proposed Project on public services provided by the City of Westminster or other agencies.

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

Public service systems are already servicing the City of Westminster. It is not anticipated that the Project would result in substantial adverse impacts to public services, because it is located in an industrial area of the City already being serviced by community safety and services.

i) Fire protection?

Less Than Significant Impact with Mitigation Incorporated

The Orange County Fire Authority provides fire protection and emergency response services for the City. Response times to the site are dependent on various factors. The OCFA response goal is for the first unit to reach the emergency scene within 7 minutes and 20 seconds from receiving the call, 80% of the time. Emergency calls receive the quickest response times with alarm calls and non-emergency calls having longer response times, respectively. The availability of personnel and extenuating circumstances may further affect response times. The closest fire station to the property is located at 7351 Westminster Boulevard (Station #64), about 1.5 miles from the Project site. The proposed Project will not result in any

potential significant increase in the number of calls for service to the area beyond that anticipated per the build out of the City's General Plan. The Project development will be subject to compliance with City and OCFA requirements. Therefore, it is not anticipated that the proposed Project will result in any significant impacts relative to fire protection services and/or facilities with implementation of the following mitigation measure ensuring compliance with fire protection requirements.

Mitigation Measure 8 – Prior to the start of building construction activities, the City and the general contractor shall submit Project plans for review and approval by the Fire Chief. The plans shall demonstrate that the Project meets the requirements of the OCFA, Uniform Building Code (UBC) and Titles 19 and 24 of the California Administrative Code.

ii) Police protection?

Less Than Significant Impact

The City of Westminster Police Department provides law enforcement services to the Project area. The Project involves construction of a new cabinetry showroom, warehouse, and offices facility. The facility is not anticipated to result in a significant increase in calls for service beyond that anticipated in the City of Westminster General Plan. Therefore, impacts are projected to be less than significant.

iii) Schools?

No Impact

The Project involves construction of a cabinetry showroom, warehouse, and offices facility. The Project will not increase the number of students in the area. Therefore, the Project is not anticipated to have a significant impact on schools.

iv) Parks?

No Impact

The Project involves construction of a new cabinetry showroom, warehouse, and offices facility. The new facility will not necessitate new park requirements or impact park facilities due to the fact that there are no residents and a small employee staff. Therefore, the Project will have no impact on park facilities.

v) Other public facilities?

No Impact

See above responses under Public Services. Due to the type of project, it is not anticipated that the Project will have any significant impact on public services and/or facilities.

16. Recreation

The Recreation section analyzes whether the proposed Project would trigger the need for additional recreation facilities within the community. The section also evaluates the impact on use of existing neighborhood or regional parks.

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

No Impact

The proposed Project will add a cabinetry showroom, warehouse, and offices facility in the City of Westminster. It is not anticipated that the Project will have any impacts on recreation facilities and would not lead to the physical deterioration of City recreation facilities. The business will have a relatively small staff and customers are not expected to use local parks. Therefore, less than significant impacts to park facilities will occur as a result of this Project.

b) Does the project include recreational facilities or require the construction of or expansion of recreational facilities which might have an adverse physical effect on the environment?

No Impact

See response to Item 16.a) above. It is not anticipated that the Project will result in any impacts to recreational facilities.

17. Transportation/Traffic

The Transportation/Traffic section evaluates whether the Project creates conflicts with the effectiveness of the existing transportation network, any congestion management plan, or creates any design flaws that would substantially increase transportation hazards.

Would the Project:

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Less Than Significant Impact

A Trip Generation Memorandum was prepared by Fehr & Peers for the proposed cabinetry showroom, warehouse, and offices facility at 15172 Goldenwest Circle in the City of Westminster. The Memo is included as Appendix E of this environmental document, and the projected vehicle trips are based on the ITE Trip Generation Manual rates for warehouse and furniture stores for the showroom to estimate project trips for both functions. The proposed facility is designed as a warehouse and showroom with a 2,910 square foot office area. The proposed Project is anticipated to generate 235 daily trips, 21 AM peak hour trips, and 24 PM peak hour trips. The projected trips are not significant enough to conflict with any applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system. They do not reach the threshold to trigger a full

traffic study under City of Westminster guidelines. Therefore, transportation impacts will be less than significant.

b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Less Than Significant Impact

See response to Item 17.a) above. While Bolsa Avenue (adjacent to the Project site) is on the Orange County Congestion Management Program Network, the Project will not generate a significant amount of vehicle trips during the peak hours. Therefore, the Project will not conflict with an applicable congestion management program (CMP), because it does not add a sufficient number of trips to a CMP intersection to affect existing levels of service. Therefore, less than significant impacts would result due to the implementation of the Project.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

No Impact

See response to Item 17.a) above for analysis. Additionally, the Project does not have any impact on existing and/or planned air traffic (or safety risks) because it is not near an airport. Therefore, there are no impacts that would trigger a change in air traffic patterns.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact

See response to Item 17.a) above. The Project does not propose any design features relative to curves, intersections, or incompatible uses.

e) Result in inadequate emergency access?

No Impact

See response to Item 17.a) above. The Project does not propose to change the existing emergency access into the neighborhood. The Project will be required to meet emergency access design requirements of the Orange County Fire Authority (OCFA). Therefore, no significant impacts regarding emergency access are anticipated as a result of the Project.

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

No Impact

See response to Item 17.a) above. The proposed Project will not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities or otherwise decrease the performance or safety of such facilities.

The Orange County Transportation Authority (OCTA) provides public transportation services in Orange County, including Westminster. Bus routes operate along Bolsa Avenue (OCTA Bus Route 64), which is about one mile from the Beach Boulevard high-quality transit

corridor, in the Project's vicinity. The Project is not expected to negatively impact any current facility, service or service expansion plans for the Project area and/or site. Therefore, the Project will not conflict with adopted policies, plans, or programs supporting alternative transportation.

18. Tribal Cultural Resources

The Tribal Cultural Resources section discusses the presence of Native American cultural resources on the project site and notification/consultation efforts with local tribes.

Would the Project:

1. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code §21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- **Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or**

Less Than Significant Impact with Mitigation Incorporated

The project involves demolition of an existing warehouse building and construction of a new cabinetry showroom, warehouse, and offices facility at 15172 Goldenwest Circle in the City of Westminster. The facility will contain 9,100 square feet of office space.

The City of Westminster General Plan Environmental Impact Report [5]documented the absence of sacred lands or prehistoric villages within the City. A cultural resources study by Cogstone noted the presence of five prehistoric archaeological sites which were destroyed by urban development prior to the passage of environmental laws. Cogstone conducted a Sacred Lands File search at the request of the Native American Heritage Commission and the results were negative. As part of the General Plan EIR process, the City conducted tribal consultation with nine Native American Tribal Organizations. No responses were received.

The site of the proposed project includes an existing warehouse building that will be demolished. The site has previously been developed and ground disruption is expected to be minimal. The General Plan EIR noted that it is very unlikely that any intact prehistoric resources remain the City. Therefore, the potential for adverse impacts to historical archaeological resources is considered low. However, a mitigation measure is included below that outlines protocol in the event any cultural artifacts or resources are encountered during site grading and preparation. This mitigation measure will reduce potential impacts to a less than significant level.

[5] Westminster General Plan EIR dated July, 2016, pages 5.3.8 and E1-4.

Mitigation Measure 9 –During construction activities, if archaeological and/or paleontological resources are encountered, the contractor shall be responsible for immediate notification and securing of the site immediately. A qualified archaeologist and/or paleontologist approved by the City shall be retained by the property owner to establish in cooperation with the project developer and the City, procedures for temporarily halting or redirecting work to permit sampling, identification, and evaluation of the cultural resource find. Discovered cultural resources shall be offered to the City of Westminster or its designee on a first-refusal basis,.

- **A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.**

Less Than Significant Impact

Any cultural resources found on the site as a result of the mitigation measure shall be the subject of consultation with the California Native American Tribe associated with the site.

19. Utilities and Service Systems

The Utilities and Service Systems section evaluates the proposed Project's impact on utilities and provision of municipal waste management services. Specifically, the section analyzes whether the proposed Project would trigger the need for additional facilities or whether capacity exists to support the Project.

Would the Project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Less Than Significant Impact

It is anticipated that all wastewater treatment generated by the Project can be accommodated and treated by existing facilities or those planned by the Orange County Sanitation District. The Project does not propose an increase in wastewater treatment capacity beyond that contemplated in the build out of the Westminster General Plan. The proposed Project involves the construction of a cabinetry showroom, warehouse, and offices facility that will replace an existing building on the site. Therefore, it is not anticipated that the proposal will result in any significant impact relative to wastewater or treatment requirements.

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

No Impact

The Project will not result in the significant alteration or expansion of existing utility and service systems. The Project does not create any significant additional burden on these

facilities that would require construction of new or expanded facilities. Therefore, the Project will have no impact on existing wastewater treatment facilities.

c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

No Impact

See response to Item 19.b) above. The Project involves construction of a new cabinetry showroom, warehouse, and offices facility. The Project is designed to utilize the existing storm drain water drainage facilities, including the Westminster Channel southwest of the Project property. Therefore, the Project will not result in any impacts to the storm water drainage facilities that would cause significant impacts.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

No Impact

See response to Item 19.b) above. Water is supplied to the City of Westminster by imported water sources purchased from the Metropolitan Water District. The City also has water production wells that pump imported groundwater and provide approximately 60% of the City's water supply.[6] The City's General Plan EIR (page 5.13-19) identified that the approximately 12,527 acre feet per year of water use would occur at build out (2040) for peak demand. The General Plan EIR also noted that although it is anticipated that there will be adequate available water to serve development planned per the General Plan, supplies of imported water to Southern California could be constrained in the future. Therefore, the General Plan EIR emphasized the importance of water conservation and adhering to State and municipal laws requiring water-efficient plumbing fixtures in new structures. The Project proposes a new cabinetry showroom, warehouse, and offices facility in line with development projected in the City's General Plan Land Use Element and Housing Element. The Project does not represent any development beyond that anticipated in the General Plan that would involve water supply. The Project will comply with all applicable city, state and municipal laws pertaining to water conservation as required through City standard conditions of approval. Therefore, no impacts to this topical area will occur.

e) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

No Impact

See response to Item 19.b) above. The Project will not result in any significant impacts to wastewater treatment.

6 City of Westminster General Plan/EIR, September 2016, page 5.13-16

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

No Impact

The Project site is located in the Midway City Sanitary District. The City's General Plan EIR (page 5.13-35) indicates that at build-out solid waste generation could increase by an estimated 21,760 tons per year. The estimate takes into account increases in recycling that will occur and have been occurring under the California Integrated Waste Management Act (AB 939). The General Plan EIR concluded that build-out of the City would not result in a significant impact to solid waste with implementation of the City's Source Reduction and Recycling Element (SRRE). The Project will also be required to comply with the SRRE adopted by the City of Westminster to achieve mandated reductions of generated waste. Therefore, the Project itself will not have any significant impact on solid waste disposal.

g) Comply with federal, state, and local statutes and regulations related to solid waste?

No Impact

See response to Item 19.b) above. The Project itself will comply with federal, state and local statutes on solid waste disposal.

20. Wildfire

The Wildfire section evaluates the proposed Project's impact on wildfire if it is located near state responsibility area or lands classified as very high hazard severity zones.

Would the Project:

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact

The proposed Project is a new cabinetry showroom, warehouse, and offices facility located at 15172 Goldenwest Circle in an industrial area of the City of Westminster. The Project would not substantially impair an adopted emergency response plan or emergency evacuation plan. Therefore, there is no impact on these plans.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

No Impact

The Project is located in an industrial area of the City that is near the Land Elementary School of the Westminster School District. The property is flat and located in an area that is already urbanized. There is no potential to expose Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire. Therefore, there is no impact from the Project.

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

No Impact

The Project, a cabinetry showroom, warehouse, and offices facility, sits on a flat site that contains an existing building that will be demolished in an urbanized area of the City. There would be no requirement for the installation or maintenance of associated infrastructure that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. All infrastructure is in place to support the Project, including an adjacent flood control channel sized for a 100-year storm. Therefore, there are no impacts involving installation or maintenance of additional infrastructure.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

No Impact

See response to item 20.c) above. The Project would not expose people or structures to significant risks from flooding or landslides as a result of runoff, post-fire slope instability, or drainage changes. The Project is proposed on a flat parcel located adjacent to a flood control channel in an area that is relatively flat throughout the Project area. Therefore, there will be no impacts in this area.

21. Mandatory Findings of Significance

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

No Impact

On the basis of the foregoing analysis, the proposed Project does not have the potential to significantly degrade the quality of the environment. The Project site does not contain any habitat of fish or wildlife species that would be impacted by the Project. The site is located in an urbanized setting. The proposed Project consists of construction of a new cabinetry showroom, warehouse, and offices facility at 15172 Goldenwest Circle in the City of Westminster. The property contains an existing building that will be removed. The Project is compatible with the surrounding industrial land uses. The Project will not impact any sensitive or special status habitat and/or wildlife species.

b) Does the project have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?

No Impact

The site is located in a developed area that already provides infrastructure to support the proposed Project. There are no long-term environmental goals that would be compromised

by the Project. The Project does not have the potential to achieve short-term goals to the disadvantage of long-term goals.

c) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

No Impact

No cumulative impacts are anticipated in connection with this or other projects. The Project will be consistent with the City's General Plan land use designation. The Project will not result in environmental effects which are cumulatively considerable since the proposal is consistent with the goals and policies of the City's General Plan. The Project does not have any impact on projected growth and planned projects for the City of Westminster as of the date of this analysis. Recommended mitigation measures as well as the Project design will reduce all potential impacts to a level of less than significant. Therefore, it is not anticipated that the Project will result in significant cumulative impacts.

d) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

No Impact

There are no known substantial adverse effects on human beings that would be caused by the proposed Project. The Project is consistent with the land uses in the Project area and the environmental evaluation has concluded that no adverse significant environmental impacts will result from the Project.

Source List

The following enumerated documents are available at the offices of the City of Westminster, Planning Department, 8200 Westminster Boulevard, Westminster, California 92683.

1. City of Westminster, 2016 General Plan
2. City of Westminster, 2016 General Plan EIR, 2016
3. Zoning Map, City of Westminster
4. Westminster Municipal Code
5. City of Westminster, CEQA Handbook, Adopted by Resolution 3577 of the City Council
6. California Environmental Quality Act as amended January 1, 2023. §§21000-21178 of the Public Resources Code, State of California
7. Guidelines for California Environmental Quality Act as amended January 1, 2023. §15000-15387 of the California Code of Regulations, Title 14, Chapter 3, State of California
8. California Department of Conservation, Official Maps of Seismic Hazard Zones Newport Quadrangle, 1998
9. Federal Flood Insurance Rate Map, Panel No. 06059C-0251J, 2009
10. Air Quality and GHG Impact Analysis for 15172 Goldenwest Circle Project dated August 28, 2023 prepared by Gerrick Environmental.
11. Noise Impact Analysis for 15172 Goldenwest Circle Project dated October 2, 2023 prepared by Gerrick Environmental.
12. Westminster Goldenwest Circle Traffic Study dated November 4, 2022 prepared by Fehr & Peers.
13. Preliminary Water Quality Management Plan prepared by ITF & Associates, Inc. dated January, 2022.
14. Phase 1 Environmental Site Assessment prepared by Odic Environmental dated May 11m 2018.
15. http://geotracker.swrcb.ca.gov

Appendix A –

Environmental Checklist

1. Background

1.	**Project Title:** ArtiCraft Cabinetry Facility
2.	**Lead Agency Name and Address:** City of Westminster Planning Division 8200 Westminster Boulevard Westminster, CA 92683
3.	**Contact Person and Phone Number:** Ken Fichtelman Tel. 714.548.3484 Fax 714.899.9660
4.	**Project Location:** 15172 Goldenwest Circle Westminster, CA 92683
5.	**Project Sponsor's Name and Address:** G-Bow 15172 Goldenwest Circle, Westminster, CA 92683
6.	**General Plan Designation:** Industrial
7.	**Zoning:** M-2 Medium Industrial
8.	**Description of the Project:** (Describe the whole action involved, including but not limited to, later phases of the Project, and any secondary support or off-site features necessary for its implementation.) The project consists of the demolition of the existing building, parking lot and landscaping at 15172 Goldenwest Circle in the City of Westminster. Once the site is cleared, construction will begin on an approximately 116,000 square foot building that will house the 405 Cabinets and Stone showroom, administrative offices and warehouse/assembly line areas. The building will be sited in the middle of the 232,201 square foot building site. It will be surrounded by parking areas and landscaping. The two-story office area of the building, about 7,900 square feet, will include offices, conference rooms and work stations for design activities. The warehouse area of the building will consist of space for assembly line, racks, offices for warehouse managers, will call center and fork-lift charging stations. The warehouse portion will include five drive-in doors and right loading doors. The building's orientation will allow exposure of the west and south building façades to the 405 Freeway. Two sets of stairs and an elevator are provided to meet ADA access requirements. Vehicles will access the site through an existing driveway off Goldenwest Circle that will be widened to 40 feet. There is no existing sidewalk or pedestrian access along Goldenwest Circle. The site is zoned M-2, which is Medium Industrial. The General Plan Land Use designation is Industrial. The project is designed with a total of 147 parking spaces, including EV and ADA parking, and 116 spaces are required in accordance with the Westminster Municipal Code. The proposed building will reach 44 feet in height on one corner of the building where the offices are located. The project parcel totals 5.331 acres and is located along the 405

Freeway and Goldenwest Circle. The project will require Development Review and a Variance to exceed the maximum 35-foot building height limit.

9. Surrounding Land Uses and Setting: (This includes any tributaries to already impaired water bodies, as listed on the Clean Water Act Section 303(d) list.)

The project site for the proposed industrial business is located at 15172 Goldenwest Circle in Westminster, California. The site is on Goldenwest Circle off Bolsa Avenue adjacent to the 405 Freeway. On the north side, the site is bordered by Goldenwest Circle. The site is bordered by other industrial facilities to the north, west and east, and the 405 Freeway to the south. The site is privately-owned.

10. Other public agencies whose approval is required (e.g., permits, financing approval or participation agreement).

Orange County Fire Authority

11. Have California Native American Tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

No

2. Environmental Factors Potentially Affected

The environmental factors checked below would potentially be affected by this Project, involving at least one impact that is a "Potentially Significant Impact" or "Less Than Significant With Mitigation Incorporated," as indicated by the checklist on the following pages.

✓	Aesthetics		Mineral Resources
	Agriculture and Forestry Resources		Noise
✓	Air Quality		Population and Housing
	Biological Resources	✓	Public Services
	Cultural Resources		Recreation
	Energy	✓	Transportation/Traffic
✓	Geology and Soils		Tribal Cultural Resources
✓	Green House Gas Emissions		Utilities and Service Systems
✓	Hazards and Hazardous Materials		Wildfire
✓	Hydrology and Water Quality		Mandatory Findings of Significance
✓	Land Use and Planning		

3. Evaluation of Environmental Impacts

This section analyzes potential environmental impacts associated with the proposed Project. The issue areas evaluated in this Initial Study include:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation/Traffic
- Tribal Cultural Resources
- Wildfire
- Utilities and Service Systems

The environmental analysis in this section is patterned after the Initial Study Checklist recommended by the CEQA Guidelines and used by the City of Westminster in its environmental review process. For the preliminary environmental assessment undertaken as part of this Initial Study's preparation, a determination that there is a potential for significant effects indicates the need to more fully analyze the development's impacts and identify mitigation.

For the evaluation of potential impacts, the questions in the Initial Study Checklist are stated and an answer is provided according to the analysis undertaken as part of the Initial Study. The analysis considers the long-term, direct, indirect, and cumulative impacts of the development. To each question, there are four possible responses:

- **No Impact.** The development will not have any measurable environmental impact on the environment.
- **Less Than Significant Impact.** The development will have the potential for impacting the environment, although this impact will be below established thresholds that are considered to be significant.
- **Less Than Significant With Mitigation Incorporated.** The development will have the potential to generate impacts, which may be considered as a significant effect on the environment, although mitigation measures or changes to the development's physical or operational characteristics can reduce these impacts to levels that are less than significant.
- **Potentially Significant Impact**. The development will have impacts, which are considered significant, and additional analysis is required to identify mitigation measures that could reduce these impacts to less than significant levels.

Where potential impacts are anticipated to be significant, mitigation measures will be required to avoid or reduce impacts to less than significant levels.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
1. AESTHETICS. Would the Project:				
a. Have a substantial adverse effect on a scenic vista?				[Ξ]
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				[Ξ]
c. Substantially degrade the existing visual character or quality of the site and its surroundings?				[Ξ]
d. Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?		[Ξ]		
2. AGRICULTURE AND FOREST RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Project Would the Project:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				[Ξ]
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?				[Ξ]
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				[Ξ]
d. Result in the loss of forest land or conversion of forest land to non-forest use?				[Ξ]
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				[Ξ]
3. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the Project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?				[Ξ]
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?		[Ξ]		
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?			[Ξ]	
d. Expose sensitive receptors to substantial pollutant concentrations?			[Ξ]	
e. Create objectionable odors affecting a substantial number of people?			[Ξ]	
4. BIOLOGICAL RESOURCES. Would the Project:				
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				[Ξ]
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				[Ξ]
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				[Ξ]
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?		[Ξ]		

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				☒
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				☒
5. CULTURAL RESOURCES. Would the Project:				
a. Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5?				☒
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?				☒
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				☒
d. Disturb any human remains, including those interred outside of formal cemeteries?				☒
6. ENERGY. Would the project: **a.** Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?				☒
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?				☒
7. GEOLOGY AND SOILS. Would the Project:				
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
1) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			☒	
2) Strong seismic ground shaking?			☒	
3) Seismic-related ground failure, including liquefaction?			☒	
4) Landslides?				☒
b. Result in substantial soil erosion or the loss of topsoil?				☒
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			☒	
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			☒	
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				☒
8. GREENHOUSE GAS EMISSIONS: Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			☒	
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			☒	
9. **HAZARDS AND HAZARDOUS MATERIALS**: Would the Project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				☒
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			☒	

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?		Ξ		
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?			Ξ	
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard for people residing or working in the Plan area?				Ξ
f. For a project within the vicinity of a private airstrip, would the Project result in a safety hazard for people residing or working in the Plan area?				Ξ
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				Ξ
h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				Ξ
10. **HYDROLOGY AND WATER QUALITY**. Would the Project:				
a. Violate any water quality standards or waste discharge requirements?		Ξ		
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?				Ξ
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?				Ξ
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?				Ξ
e. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?			Ξ	
f. Otherwise substantially degrade water quality?				Ξ
g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				Ξ
h. Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				Ξ
i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				Ξ
j. Inundation by seiche, tsunami, or mudflow?				Ξ
k. Potentially impact storm water runoff from construction activities?			Ξ	
l. Potentially impact storm water runoff from post-construction activities?			Ξ	
m. Result in a potential for discharge of storm water pollutants(e.g., oil, grease, pesticides, nutrients, sediments, pathogens, etc.) from areas of material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas, loading docks or other outdoor work areas?			Ξ	
n. Result in the potential for discharge of storm water to affect the beneficial uses of the receiving waters?				Ξ
o. Create the potential for significant changes in the flow velocity for volume of storm water runoff to cause environmental harm?				Ξ
p. Create significant increases in erosion of the project site or surrounding areas?				Ξ

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
q. Would the project include new or retrofitted stormwater treatment control Best Management Practices (BMPs), (e.g. water quality treatment basin, constructed treatment wetlands), the operation of which could result in significant environment effects?			[Ξ]	
r. Is the project tributary to an already impaired water body, as listed on the Clean Water Act Section 303(d) list? If so, cold the project result in an increase in any pollutant for which the water body is already impaired?			[Ξ]	
11. LAND USE AND PLANNING. Would the Project:				
a. Physically divide an established community?				[Ξ]
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?			[Ξ]	
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?				[Ξ]
12. MINERAL RESOURCES. Would the Project:				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				[Ξ]
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				[Ξ]
13. NOISE. Would the Project result in:				
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?		[Ξ]		
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			[Ξ]	
c. A substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project?			[Ξ]	
d. A substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project?			[Ξ]	
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the Plan area to excessive noise levels?				[Ξ]
f. For a project within the vicinity of a private airstrip, would the Project expose people residing or working in the Plan area to excessive noise levels?				[Ξ]
14. POPULATION AND HOUSING. Would the Project:				
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				[Ξ]
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				[Ξ]
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				[Ξ]
15. PUBLIC SERVICES				
a. Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
1) Fire protection?		[Ξ]		
2) Police protection?			[Ξ]	
3) Schools?				[Ξ]

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
4) Parks?				[Ξ]
5) Other public facilities?				[Ξ]
16. RECREATION				
a. Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				[Ξ]
b. Does the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				[Ξ]
17. TRANSPORTATION/TRAFFIC. Would the Project:				
a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?			[Ξ]	
b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?			[Ξ]	
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				[Ξ]
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				[Ξ]
e. Result in inadequate emergency access?				[Ξ]
f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?				[Ξ]
18. TRIBAL CULTURAL RESOURCES				
Would the project Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k).		[Ξ]		
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.			[Ξ]	
19. UTILITIES AND SERVICE SYSTEMS. Would the Project:				
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			[Ξ]	
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				[Ξ]
c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				[Ξ]
d. Have sufficient water supplies available to serve the Project from existing entitlements and resources, or are new or expanded entitlements needed?				[Ξ]

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
e. Result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments?				[Ξ]
f. Be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs?				[Ξ]
g. Comply with federal, state, and local statutes and regulations related to solid waste?				[Ξ]
20. WILDFIRE If located in or near state responsibility areas or lands classified as very high fire hazard severity zones , would the project:				
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?				[Ξ]
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?				[Ξ]
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?				[Ξ]
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff , post-fire slope instability, or drainage changes?				[Ξ]
MANDATORY FINDINGS OF SIGNFICIANCE				
a. Does the Project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?				[Ξ]
b. Does the project have the potential to achieve short-term environmental goals to the disadvantage of long term environmental goals?				[Ξ]
c. Does the Project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?				[Ξ]
d. Does the Project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?				[Ξ]

4 DETERMINATION (To be completed by the Lead Agency)

On the basis of this initial evaluation:

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

Submitted by: City of Westminster, Planning Division

Prepared by: William E. Hodge
Hodge & Associates

_____ Signature

_____ Date

Appendix B –
Air Quality and GHG Impact Analysis

AIR QUALITY and GHG IMPACT ANALYSES

15172 GOLDENWEST CIRCLE COMMERCIAL PROJECT

WESTMINSTER, CALIFORNIA

Prepared by:
Gerrick Environmental

Prepared for:

Hodge & Associates
Attn: Bill Hodge
1112 Wendy Avenue
Big Bear City, CA 92314

Date:

August 28, 2023

Project No.: P23-019 A

BACKGROUND

The project is located at 15172 Goldenwest Circle, Westminster, CA. The project proposes construction of a new 116,000 S.F. storage and warehouse facility for 405 Cabinets & Stone on a 232,201-sf lot. Approximately10 percent, or 7,900 sf, will be used for the office and showroom areas.

Project development will consist of the demolition of the existing building, parking lot, and landscaping. Parking will provide a total of 147 stalls. In addition, approximately 7,700 sf of hardscape is proposed.

ATMOSPHERIC SETTING

The climate of Westminster, technically called a Mediterranean-type climate, is characterized by warm summers, mild winters, infrequent rainfall, moderate afternoon breezes, and generally fair weather. Temperatures near the project area average a very comfortable 63°F year-round. Summer afternoons are typically in the middle 80s and winter mornings drop to the low- to mid-40s. About 45 summer days reach 90 degrees F, and five days per year may drop to 32 degrees, but significant extremes of temperature are rare in the project area. Rainfall in the Los Angeles Basin varies considerably in both time and space. Rainfall amounts vary from an average of 10 to 18 inches as a function of local exposure and topography. Westminster averages 14.6 inches of rain during a normal year. Almost all the annual rainfall comes from the fringes of mid-latitude storms from late November to early April with summers often completely dry. Light rain (0.1" in 24 hours) falls on 20 days during a normal year with 10 days in the moderate (0.5" in 24 hours category).

Winds blow primarily from southwest to northeast by day and from northeast to the southwest at night in response to the regional pattern of onshore flow by day and offshore flow at night. Average wind speeds are 5 mph average in the Westminster area, reaching 6-8 mph in the afternoon but dropping to near calm conditions (1-3 mph) at night.

In addition to winds that control the rate and direction of pollution dispersal, Southern California is notorious for strong temperature inversions that limit the vertical depth through which pollution can be mixed. In summer, coastal areas are characterized by a sharp discontinuity between the cool marine air at the surface and the warm, sinking air aloft within the high-pressure cell over the ocean to the west. This marine/subsidence inversion allows for good local mixing but acts like a giant lid over the basin. Air starting onshore at the beach is relatively clean but becomes progressively more polluted as sources continue to add pollution from below without any dilution from above. Air arriving at Westminster during warm season marine flow conditions has undergone limited photochemical reactions, but not to its fullest extent possible. Summer smog levels in Westminster are much lower than in inland valleys of the basin such as the San Gabriel or the Pomona-Walnut Valleys. Summer air quality is only moderately degraded compared to the severe degradation found farther inland within the air basin.

A second inversion type forms on clear, winter nights when cold air off the mountains sinks to the surface while the air aloft remains warm. This process forms radiation inversions. These inversions, in conjunction with calm winds, trap pollutants such as automobile exhaust near their source. During the long nocturnal drainage flow from land to sea, the exhaust pollutants continually accumulate within the shallow, cool layer of air near the ground. Central Orange County thus may experience elevated levels of carbon monoxide and nitrogen oxides because of this winter inversion condition. With ongoing vehicular improvements, clean air standards are generally not exceeded during nocturnal stagnation periods as they were 10-20 years ago.

Both types of inversions occur throughout the year to some extent, but the marine inversions are very dominant during the day in summer, and radiation inversions are much stronger on winter nights when nights are long and air is cool. The governing role of these inversions in atmospheric dispersion leads to a substantially different air quality environment in summer near the project area than in winter.

AIR QUALITY SETTING

AMBIENT AIR QUALITY STANDARDS (AAQS)

In order to gauge the significance of the air quality impacts of the proposed project, those impacts, together with existing background air quality levels, must be compared to the applicable ambient air quality standards. These standards are the levels of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare. They are designed to protect those people most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise, called "sensitive receptors." Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed. Recent research has shown, however, that chronic exposure to ozone (the primary ingredient in photochemical smog) may lead to adverse respiratory health even at concentrations close to the ambient standard.

National AAQS were established in 1971 for six pollution species with states retaining the option to add other pollutants, require more stringent compliance, or to include different exposure periods. The initial attainment deadline of 1977 was extended several times in air quality problem areas like Southern California. In 2003, the Environmental Protection Agency (EPA) adopted a rule, which extended and established a new attainment deadline for ozone for the year 2021. Because the State of California had established AAQS several years before the federal action and because of unique air quality problems introduced by the restrictive dispersion meteorology, there is considerable difference between state and national clean air standards. Those standards currently in effect in California are shown in Table 1. Sources and health effects of various pollutants are shown in Table 2.

The Federal Clean Air Act Amendments (CAAA) of 1990 required that the U.S. Environmental Protection Agency (EPA) review all national AAQS in light of currently known health effects. EPA was charged with modifying existing standards or promulgating new ones where appropriate. EPA subsequently developed standards for chronic ozone exposure (8+ hours per day) and for very small diameter particulate matter (called "PM-2.5"). New national AAQS were adopted in 1997 for these pollutants.

Planning and enforcement of the federal standards for PM-2.5 and for ozone (8-hour) were challenged by trucking and manufacturing organizations. In a unanimous decision, the U.S. Supreme Court ruled that EPA did not require specific congressional authorization to adopt national clean air standards. The Court also ruled that health-based standards did not require preparation of a cost-benefit analysis. The Court did find, however, that there was some inconsistency between existing and "new" standards in their required attainment schedules. Such attainment-planning schedule inconsistencies centered mainly on the 8-hour ozone standard. EPA subsequently agreed to downgrade the attainment designation for a large number of communities to “non-attainment” for the 8-hour ozone standard.

Table 1

Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards [1]		National Standards [2]		
		Concentration [3]	Method [4]	Primary [3,5]	Secondary [3,6]	Method [7]
Ozone (O_3)[8]	1 Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m^3)		0.070 ppm (137 µg/m^3)		
Respirable Particulate Matter (PM10)[9]	24 Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		—		
Fine Particulate Matter (PM2.5)[9]	24 Hour	—	—	35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	12.0 µg/m^3	15 µg/m^3	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m^3)	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m^3)		9 ppm (10 mg/m^3)	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		—	—	
Nitrogen Dioxide (NO_2)[10]	1 Hour	0.18 ppm (339 µg/m^3)	Gas Phase Chemiluminescence	100 ppb (188 µg/m^3)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)		0.053 ppm (100 µg/m^3)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[11]	1 Hour	0.25 ppm (655 µg/m^3)	Ultraviolet Fluorescence	75 ppb (196 µg/m^3)	—	Ultraviolet Flourescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m^3)	
	24 Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (for certain areas)[11]	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas)[11]	—	
Lead[12,13]	30 Day Average	1.5 µg/m^3	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m^3 (for certain areas)[12]	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 µg/m^3		
Visibility Reducing Particles[14]	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 µg/m^3	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24 Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			

See footnotes on next page …

For more information please call ARB-PIO at (916) 322-2990

California Air Resources Board (5/4/16)

Table 1 (continued)

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.

3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.

5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

7. Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.

8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

9. On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 $\mu g/m^3$ to 12.0 $\mu g/m^3$. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35 $\mu g/m^3$, as was the annual secondary standard of 15 $\mu g/m^3$. The existing 24-hour PM10 standards (primary and secondary) of 150 $\mu g/m^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

11. On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

    Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

12. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 $\mu g/m^3$ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

14. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

Table 2
Health Effects of Major Criteria Pollutants

Pollutants	Sources	Primary Effects
Carbon Monoxide (CO)	• Incomplete combustion of fuels and other carbon-containing substances, such as motor exhaust. • Natural events, such as decomposition of organic matter.	• Reduced tolerance for exercise. • Impairment of mental function. • Impairment of fetal development. • Death at high levels of exposure. • Aggravation of some heart diseases (angina).
Nitrogen Dioxide (NO_2)	• Motor vehicle exhaust. • High temperature stationary combustion. • Atmospheric reactions.	• Aggravation of respiratory illness. • Reduced visibility. • Reduced plant growth. • Formation of acid rain.
Ozone (O_3)	• Atmospheric reaction of organic gases with nitrogen oxides in sunlight.	• Aggravation of respiratory and cardiovascular diseases. • Irritation of eyes. • Impairment of cardiopulmonary function. • Plant leaf injury.
Lead (Pb)	• Contaminated soil.	• Impairment of blood function and nerve construction. • Behavioral and hearing problems in children.
Respirable Particulate Matter (PM-10)	• Stationary combustion of solid fuels. • Construction activities. • Industrial processes. • Atmospheric chemical reactions.	• Reduced lung function. • Aggravation of the effects of gaseous pollutants. • Aggravation of respiratory and cardio respiratory diseases. • Increased cough and chest discomfort. • Soiling. • Reduced visibility.
Fine Particulate Matter (PM-2.5)	• Fuel combustion in motor vehicles, equipment, and industrial sources. • Residential and agricultural burning. • Industrial processes. • Also, formed from photochemical reactions of other pollutants, including NOx, sulfur oxides, and organics.	• Increases respiratory disease. • Lung damage. • Cancer and premature death. • Reduces visibility and results in surface soiling.
Sulfur Dioxide (SO_2)	• Combustion of sulfur-containing fossil fuels. • Smelting of sulfur-bearing metal ores. • Industrial processes.	• Aggravation of respiratory diseases (asthma, emphysema). • Reduced lung function. • Irritation of eyes. • Reduced visibility. • Plant injury. • Deterioration of metals, textiles, leather, finishes, coatings, etc.

Source: California Air Resources Board, 2002.

Evaluation of the most current data on the health effects of inhalation of fine particulate matter prompted the California Air Resources Board (ARB) to recommend adoption of the statewide PM-2.5 standard that is more stringent than the federal standard. This standard was adopted in 2002. The State PM-2.5 standard is more of a goal in that it does not have specific attainment planning requirements like a federal clean air standard, but only requires continued progress towards attainment.

Similarly, the ARB extensively evaluated health effects of ozone exposure. A new state standard for an 8-hour ozone exposure was adopted in 2005, which aligned with the exposure period for the federal 8-hour standard. The California 8-hour ozone standard of 0.07 ppm is more stringent than the federal 8-hour standard of 0.075 ppm. The state standard, however, does not have a specific attainment deadline. California air quality jurisdictions are required to make steady progress towards attaining state standards, but there are no hard deadlines or any consequences of non-attainment. During the same re-evaluation process, the ARB adopted an annual state standard for nitrogen dioxide ($NO_{2)}$ that is more stringent than the corresponding federal standard, and strengthened the state one-hour NO_2 standard.

As part of EPA's 2002 consent decree on clean air standards, a further review of airborne particulate matter (PM) and human health was initiated. A substantial modification of federal clean air standards for PM was promulgated in 2006. Standards for PM-2.5 were strengthened, a new class of PM in the 2.5 to 10 micron size was created, some PM-10 standards were revoked, and a distinction between rural and urban air quality was adopted. In December, 2012, the federal annual standard for PM-2.5 was reduced from 15 $\mu g/m^3$ to 12 $\mu g/m^3$ which matches the California AAQS. The severity of the basin's non-attainment status for PM-2.5 may be increased by this action and thus require accelerated planning for future PM-2.5 attainment.

In response to continuing evidence that ozone exposure at levels just meeting federal clean air standards is demonstrably unhealthful, EPA had proposed a further strengthening of the 8-hour standard. A new 8-hour ozone standard was adopted in 2015 after extensive analysis and public input. The adopted national 8-hour ozone standard is 0.07 ppm which matches the current California standard. It will require three years of ambient data collection, then 2 years of non-attainment findings and planning protocol adoption, then several years of plan development and approval. Final air quality plans for the new standard are likely to be adopted around 2022. Ultimate attainment of the new standard in ozone problem areas such as Southern California might be after 2025.

In 2010 a new federal one-hour primary standard for nitrogen dioxide (NO_2) was adopted. This standard is more stringent than the existing state standard. Based upon air quality monitoring data in the South Coast Air Basin, the California Air Resources Board has requested the EPA to designate the basin as being in attainment for this standard. The federal standard for sulfur dioxide (SO_2) was also recently revised. However, with minimal combustion of coal and mandatory use of low sulfur fuels in California, SO_2 is typically not a problem pollutant.

BASELINE AIR QUALITY

Existing and probable future levels of air quality around the project area can best be best inferred from ambient air quality measurements conducted by the SCAQMD at the Anaheim monitoring station. This station measures both regional pollution levels such as smog, as well as primary vehicular pollution levels near busy roadways such as nitrogen oxides. Pollutants such as particulates (PM-10 and PM-2.5) are also monitored at Anaheim. Table 3 is a 4-year summary of the most recent monitoring data for the major air pollutants compiled from the Anaheim air monitoring station. From this data the following conclusions regarding air quality trends can be drawn.

Photochemical smog (ozone) levels rarely exceed standards. All state and federal ozone standards have been exceeded less than one percent of all days in the past four years. Measurements from more recent years demonstrate progressively improved ozone levels in the area. Measurements for the most recent year, 2021, show no violations.

Respirable dust (PM-10) levels occasionally exceed the state standard on approximately four percent of all days. The less stringent federal PM-10 standard has not been exceeded in the last four years.

The federal ultra-fine particulate (PM-2.5) standard of 35 $\mu g/m^3$ has been exceeded on approximately one percent of measurement days in the last four years.

More localized pollutants such as carbon monoxide, nitrogen oxides, etc. are very low near the project site. There is substantial excess dispersive capacity to accommodate localized vehicular air pollutants such as NOx or CO without any threat of violating applicable AAQS.

Although complete attainment of every clean air standard is not yet imminent, extrapolation of the steady improvement trend suggests that such attainment could occur within the reasonably near future.

Table 3
Air Quality Monitoring Summary (2018-2021)
(Number of Days Standards Were Exceeded, and
Maximum Levels During Such Violations)

Pollutant/Standard	**2018**	**2019**	**2020**	**2021**
Ozone				
1-Hour > 0.09 ppm (S)	1	1	6	0
8-Hour > 0.07 ppm (S)	1	1	15	0
8- Hour > 0.075 ppm (F)	0	1	4	0
Max. 1-Hour Conc. (ppm)	0.112	0.096	0.142	0.103
Max. 8-Hour Conc. (ppm)	0.071	0.082	0.097	0.068
Carbon Monoxide				
8- Hour > 9. ppm (S,F)	0	0	0	0
Max 8-hour Conc. (ppm)	1.9	1.3	1.7	1.5
Nitrogen Dioxide				
1-Hour > 0.18 ppm (S)	0	0	0	0
Max. 1-Hour Conc. (ppm)	0.066	0.059	0.071	0.067
Inhalable Particulates (PM-10)				
24-hour > 50 $\mu g/m^3$ (S)	13/320	13/364	13/329	12/361
24-hour > 150 $\mu g/m^3$ (F)	0/320	0/364	0/329	0/361
Max. 24-Hr. Conc. ($\mu g/m^3$)	129.	127.	120.	115.
Ultra-Fine Particulates (PM-2.5)				
24-Hour > 35 $\mu g/m^3$ (F)	3/353	3/346	1/355	9/364
Max. 24-Hr. Conc. ($\mu g/m^3$)	54.1	36.1	41.4	54.4

S=State Standard
F=Federal Standard

Source: South Coast AQMD Air Monitoring Station Data Summary, Anaheim Station (3176)

AIR QUALITY PLANNING

The Federal Clean Air Act (1977 Amendments) required that designated agencies in any area of the nation not meeting national clean air standards must prepare a plan demonstrating the steps that would bring the area into compliance with all national standards. The SCAB could not meet the deadlines for ozone, nitrogen dioxide, carbon monoxide, or PM-10. In the SCAB, the agencies designated by the governor to develop regional air quality plans are the SCAQMD and the Southern California Association of Governments (SCAG). The two agencies first adopted an Air Quality Management Plan (AQMP) in 1979 and revised it several times as earlier attainment forecasts were shown to be overly optimistic.

The 1990 Federal Clean Air Act Amendment (CAAA) required that all states with air-sheds with "serious" or worse ozone problems submit a revision to the State Implementation Plan (SIP). Substantial reductions in emissions of ROG, NOx and CO are forecast to continue throughout the next several decades. Unless new particulate control programs are implemented, PM-10 and PM-2.5 are forecast to slightly increase.

The Air Quality Management District (AQMD) adopted an updated clean air "blueprint" in August 2003. The 2003 Air Quality Management Plan (AQMP) was approved by the EPA in 2004. The AQMP outlined the air pollution measures needed to meet federal health-based standards for ozone by 2010 and for particulates (PM-10) by 2006. The 2003 AQMP was based upon the federal one-hour ozone standard which was revoked late in 2005 and replaced by an 8-hour federal standard. Because of the revocation of the hourly standard, a new air quality planning cycle was initiated.

With re-designation of the air basin as non-attainment for the 8-hour ozone standard, a new attainment plan was developed. This plan shifted most of the one-hour ozone standard attainment strategies to the 8-hour standard. As previously noted, the attainment date was to "slip" from 2010 to 2021. The updated attainment plan also includes strategies for ultimately meeting the federal PM-2.5 standard.

Because projected attainment by 2021 required control technologies that did not exist yet, the SCAQMD requested a voluntary "bump-up" from a "severe non-attainment" area to an "extreme non-attainment" designation for ozone. The extreme designation was to allow a longer time period for these technologies to develop. If attainment cannot be demonstrated within the specified deadline without relying on "black-box" measures, EPA would have been required to impose sanctions on the region had the bump-up request not been approved. In April 2010, the EPA approved the change in the non-attainment designation from "severe-17" to "extreme." This reclassification set a later attainment deadline (2024), but also required the air basin to adopt even more stringent emissions controls.

In other air quality attainment plan reviews, EPA had disapproved part of the SCAB PM-2.5 attainment plan included in the AQMP. EPA stated that the current attainment plan relied on PM-2.5 control regulations that had not yet been approved or implemented. It was expected that several rules that were pending approval would remove the identified deficiencies. If these issues were not resolved within the next several years, federal funding sanctions for transportation Projects could

result. The 2012 AQMP included in the current California State Implementation Plan (SIP) was expected to remedy identified PM-2.5 planning deficiencies.

The federal Clean Air Act requires that non-attainment air basins have EPA approved attainment plans in place. This requirement includes the federal one-hour ozone standard even though that standard was revoked almost ten years ago. There was no approved attainment plan for the one-hour federal standard at the time of revocation. Through a legal quirk, the SCAQMD is now required to develop an AQMP for the long since revoked one-hour federal ozone standard. Because the current SIP for the basin contains a number of control measures for the 8-hour ozone standard that are equally effective for one-hour levels, the 2012 AQMP was believed to satisfy hourly attainment planning requirements.

AQMPs are required to be updated at regular intervals. The 2012 AQMP was adopted in early 2013. An updated 2016 AQMP was adopted by the SCAQMD Board in March 2017. The 2016 AQMD demonstrated the emissions reductions shown in Table 4 compared to the 2012 AQMP.

Table 4
Comparison of Emissions by Major Source Category From 2012 AQMP

Pollutant	Stationary Sources	Mobile Sources
VOC	-12%	-3%
NOx	-13%	-1%
SOx	-34%	-23%
PM2.5	-9%	-7%

*source 2016 AQMP

SCAQMD has initiated the development of the 2022 AQMP to address the attainment of the 2015 8-hour ozone standard (70 ppb) for South Coast Air Basin and Coachella Valley which will focus on attaining the 70 ppb 8-hour ozone National Ambient Air Quality Standard (NAAQS) by 2037. On-road vehicles and off-road mobile sources represent the largest categories of NOx emissions. Accomplishment of attainment goals requires an approximate 70% reduction in NOx emissions. Large scale transition to zero emission technologies is a key strategy. To this end, Governor Executive Order N-79-20 requires 100 percent EV sales by 2035 for automobiles and short haul drayage trucks. A full transition to EV buses and heavy-duty long-haul trucks is required by 2045.

The proposed project does not directly relate to the AQMP in that there are no specific air quality programs or regulations governing commercial projects. Conformity with adopted plans, forecasts and programs relative to population, housing, employment and land use is the primary yardstick by which impact significance of planned growth is determined. The SCAQMD, however, while acknowledging that the AQMP is a growth-accommodating document, does not favor designating regional impacts as less-than-significant just because the proposed development is consistent with regional growth projections. Air quality impact significance for the proposed project has therefore been analyzed on a project-specific basis.

AIR QUALITY IMPACT

STANDARDS OF SIGNIFICANCE

Air quality impacts are considered "significant" if they cause clean air standards to be violated where they are currently met, or if they "substantially" contribute to an existing violation of standards. Any substantial emissions of air contaminants for which there is no safe exposure, or nuisance emissions such as dust or odors, would also be considered a significant impact.

Appendix G of the California CEQA Guidelines offers the following four tests of air quality impact significance. A project would have a potentially significant impact if it:

a. Conflicts with or obstructs implementation of the applicable air quality plan.

b. Results in a cumulatively considerable net increase of any criteria pollutants for which the project region is non-attainment under an applicable federal or state ambient air quality standard.

c. Exposes sensitive receptors to substantial pollutant concentrations.

d. Creates objectionable odors affecting a substantial number of people.

Primary Pollutants

Air quality impacts generally occur on two scales of motion. Near an individual source of emissions or a collection of sources such as a crowded intersection or parking lot, levels of those pollutants that are emitted in their already unhealthful form will be highest. Carbon monoxide (CO) is an example of such a pollutant. Primary pollutant impacts can generally be evaluated directly in comparison to appropriate clean air standards. Violations of these standards where they are currently met, or a measurable worsening of an existing or future violation, would be considered a significant impact. Many particulates, especially fugitive dust emissions, are also primary pollutants. Because of the non-attainment status of the South Coast Air Basin (SCAB) for PM-10, an aggressive dust control program is required to control fugitive dust during project construction.

Secondary Pollutants

Many pollutants, however, require time to transform from a more benign form to a more unhealthful contaminant. Their impact occurs regionally far from the source. Their incremental regional impact is minute on an individual basis and cannot be quantified except through complex photochemical computer models. Analysis of significance of such emissions is based upon a specified amount of emissions (pounds, tons, etc.) even though there is no way to translate those emissions directly into a corresponding ambient air quality impact.

Because of the chemical complexity of primary versus secondary pollutants, the SCAQMD has designated significant emissions levels as surrogates for evaluating regional air quality impact

significance independent of chemical transformation processes. Projects with daily emissions that exceed any of the following emission thresholds are recommended by the SCAQMD to be considered significant under CEQA guidelines.

Table 5
Daily Emissions Thresholds

Pollutant	Construction	Operations
ROG	75	55
NOx	100	55
CO	550	550
PM-10	150	150
PM-2.5	55	55
SOx	150	150
Lead	3	3

Source: SCAQMD CEQA Air Quality Handbook, November, 1993 Rev.

CONSTRUCTION ACTIVITY IMPACTS

CalEEMod was developed by the SCAQMD to provide a model by which to calculate both construction emissions and operational emissions from a variety of land use projects. It calculates both the daily maximum and annual average emissions for criteria pollutants as well as total or annual greenhouse gas (GHG) emissions.

The project proposes construction of a new 116,000 S.F. storage and warehouse facility for 405 Cabinets & Stone on a 232,201-sf lot. Approximately 10 percent, or 7,900 sf, will be used for the office and showroom areas.

Project development will consist of the demolition of the existing building, parking lot, and landscaping. The new parking lot will provide a total of 147 stalls. In addition, approximately 7,700 sf of hardscape is proposed.

Estimated construction emissions were modeled using CalEEMod2020.4.0 to identify maximum daily emissions for each pollutant during project construction. Construction was modeled in using default construction equipment and schedule for a project of this size as shown in Table 6.

Table 6
Construction Activity Equipment Fleet

Phase Name and Duration	Equipment
Demolition (20 days)	1 Concrete Saw
	2 Dozers
	3 Excavators
Grading (8 days)	1 Grader
	1 Dozer
	1 Excavator
	3 Loader/Backhoes
Construction (230 days)	1 Crane
	1 Generator Set
	3 Loader/Backhoes
	1 Welder
	3 Forklifts
Paving (18 days)	1 Paver
	2 Paving Equipment
	2 Mixers
	1 Loader/Backhoe
	2 Rollers

Utilizing the indicated equipment fleet and durations shown in Table 6 the following worst-case daily construction emissions are calculated by CalEEMod and are listed in Table 7.

Table 7
Construction Activity Emissions
Maximum Daily Emissions (pounds/day)

Maximal Construction Emissions	ROG	NOx	CO	SO_2	PM-10	PM-2.5
2024	2.3	23.6	21.1	0.1	3.7	2.0
2025	65.1	13.7	18.7	0.0	1.6	0.8
SCAQMD Thresholds	75	100	550	150	150	55

Peak daily construction activity emissions are estimated be below SCAQMD CEQA thresholds without the need for added mitigation. The only model-based mitigation measure applied for this project was watering exposed dirt surfaces at least three times per day to minimize the generation of fugitive dust generation during grading.

Construction equipment exhaust contains carcinogenic compounds within the diesel exhaust particulates. The toxicity of diesel exhaust is evaluated relative to a 24-hour per day, 365 days per year, 70-year lifetime exposure. The SCAQMD does not generally require the analysis of construction-related diesel emissions relative to health risk due to the short period for which the majority of diesel exhaust would occur. Health risk analyses are typically assessed over a 9-, 30-, or 70-year timeframe and not over a relatively brief construction period due to the lack of health risk associated with such a brief exposure.

LOCALIZED SIGNIFICANCE THRESHOLDS

The SCAQMD has developed analysis parameters to evaluate ambient air quality on a local level in addition to the more regional emissions-based thresholds of significance. These analysis elements are called Localized Significance Thresholds (LSTs). LSTs were developed in response to Governing Board's Environmental Justice Enhancement Initiative 1-4 and the LST methodology was provisionally adopted in October 2003 and formally approved by SCAQMD's Mobile Source Committee in February 2005.

Use of an LST analysis for a project is optional. For the proposed project, the primary source of possible LST impact would be during construction. LSTs are applicable for a sensitive receptor where it is possible that an individual could remain for 24 hours such as a residence, hospital or convalescent facility.

LSTs are only applicable to the following criteria pollutants: oxides of nitrogen (NOx), carbon monoxide (CO), and particulate matter (PM-10 and PM-2.5). LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard, and are developed based on the ambient concentrations of that pollutant for each source receptor area and distance to the nearest sensitive receptor.

LST screening tables are available for 25, 50, 100, 200 and 500 meter source-receptor distances. The closest residences are more than 300 feet to the east of the closest project perimeter which are

accessed from Cascade Lane. There are also residences on the west side of the freeway which are similarly approximately 300 feet from the project perimeter. Therefore, the 100-meter distance was modeled.

The SCAQMD has issued guidance on applying CalEEMod to LSTs. LST pollutant screening level concentration data is currently published for 1, 2 and 5 acre sites for varying distances. For this project, the most stringent thresholds for a 1-acre site were applied.

The following thresholds and emissions in Table 8 are therefore determined (pounds per day):

Table 8
LST and Project Emissions (pounds/day)

LST 1 acre/100 meters N Coastal Orange County	**CO**	**NOx**	**PM-10**	**PM-2.5**
LST Thresholds	1,090	108	27	9
Max On-Site Emissions				
2024	21	24	4	2
12025	19	14	2	1

CalEEMod Output in Appendix

LSTs were compared to the maximum daily construction activities. As seen in Table 8, emissions easily meet the LST for construction thresholds. LST impacts are less-than-significant.

OPERATIONAL IMPACTS

The proposed project will generate 61 net new daily trip ends. Operational emissions were calculated for an assumed full occupancy year of 2025. The operational impacts are shown in Table 9.

Table 9
Proposed Uses Daily Operational Impacts

	Operational Emissions (lbs/day)					
Source	**ROG**	**NOx**	**CO**	**SO_2**	**PM-10**	**PM-2.5**
Area	2.8	0.0	0.0	0.0	0.0	0.0
Energy	0.1	0.6	0.6	0.0	0.6	0.1
Mobile	0.2	0.3	2.5	0.0	0.1	0.1
Total	**3.1**	**0.9**	**3.1**	**0.0**	**0.7**	**0.2**
SCAQMD Threshold	55	55	550	150	150	55
Exceeds Threshold?	No	No	No	No	No	No

Source: CalEEMod Output in Appendix

As shown, operational emissions will not exceed applicable SCAQMD operational emissions CEQA thresholds of significance.

CONSTRUCTION EMISSIONS MINIMIZATION

Construction activities are not anticipated to cause dust emissions to exceed SCAQMD CEQA thresholds. Nevertheless, emissions minimization through enhanced dust control measures is recommended for use because of the non-attainment status of the air basin. Recommended measures include:

Fugitive Dust Control

- Apply soil stabilizers or moisten inactive areas.
- Water exposed surfaces as needed to avoid visible dust leaving the construction site (typically 2-3 times/day).
- Cover all stock piles with tarps at the end of each day or as needed.
- Provide water spray during loading and unloading of earthen materials.
- Minimize in-out traffic from construction zone
- Cover all trucks hauling dirt, sand, or loose material and require all trucks to maintain at least two feet of freeboard
- Sweep streets daily if visible soil material is carried out from the construction site

Similarly, ozone precursor emissions (ROG and NOx) are calculated to be below SCAQMD CEQA thresholds. However, because of the regional non-attainment for photochemical smog, the use of reasonably available control measures for diesel exhaust is recommended. Combustion emissions control options include:

Exhaust Emissions Control

- Utilize well-tuned off-road construction equipment.
- Establish a preference for contractors using Tier 3 or better rated heavy equipment.
- Enforce 5-minute idling limits for both on-road trucks and off-road equipment.

GREENHOUSE GAS EMISSIONS

"Greenhouse gases" (so called because of their role in trapping heat near the surface of the earth) emitted by human activity are implicated in global climate change, commonly referred to as "global warming." These greenhouse gases contribute to an increase in the temperature of the earth's atmosphere by transparency to short wavelength visible sunlight, but near opacity to outgoing terrestrial long wavelength heat radiation in some parts of the infrared spectrum. The principal greenhouse gases (GHGs) are carbon dioxide, methane, nitrous oxide, ozone, and water vapor. For purposes of planning and regulation, Section 15364.5 of the California Code of Regulations defines GHGs to include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride. Fossil fuel consumption in the transportation sector (on-road motor vehicles, off-highway mobile sources, and aircraft) is the single largest source of GHG emissions, accounting for approximately half of GHG emissions globally. Industrial and commercial sources are the second largest contributors of GHG emissions with about one-fourth of total emissions.

California has passed several bills and the Governor has signed at least three executive orders regarding greenhouse gases. GHG statues and executive orders (EO) include AB 32, SB 1368, EO S-03-05, EO S-20-06 and EO S-01-07.

AB 32 is one of the most significant pieces of environmental legislation that California has adopted. Among other things, it is designed to maintain California's reputation as a "national and international leader on energy conservation and environmental stewardship." It will have wide-ranging effects on California businesses and lifestyles as well as far reaching effects on other states and countries. A unique aspect of AB 32, beyond its broad and wide-ranging mandatory provisions and dramatic GHG reductions are the short time frames within which it must be implemented. Major components of the AB 32 include:

- Require the monitoring and reporting of GHG emissions beginning with sources or categories of sources that contribute the most to statewide emissions.
- Requires immediate "early action" control programs on the most readily controlled GHG sources.
- Mandates that by 2020, California's GHG emissions be reduced to 1990 levels.
- Forces an overall reduction of GHG gases in California by 25-40%, from business as usual, to be achieved by 2020.
- Must complement efforts to achieve and maintain federal and state ambient air quality standards and to reduce toxic air contaminants.

Statewide, the framework for developing the implementing regulations for AB 32 is under way. Maximum GHG reductions are expected to derive from increased vehicle fuel efficiency, from greater use of renewable energy and from increased structural energy efficiency. Additionally, through the California Climate Action Registry (CCAR now called the Climate Action Reserve), general and industry-specific protocols for assessing and reporting GHG emissions have been

developed. GHG sources are categorized into direct sources (i.e. company owned) and indirect sources (i.e. not company owned). Direct sources include combustion emissions from on-and off-road mobile sources, and fugitive emissions. Indirect sources include off-site electricity generation and non-company owned mobile sources.

THRESHOLDS OF SIGNIFICANCE

In response to the requirements of SB97, the State Resources Agency developed guidelines for the treatment of GHG emissions under CEQA. These new guidelines became state laws as part of Title 14 of the California Code of Regulations in March, 2010. The CEQA Appendix G guidelines were modified to include GHG as a required analysis element. A project would have a potentially significant impact if it:

- Generates GHG emissions, directly or indirectly, that may have a significant impact on the environment, or,

- Conflicts with an applicable plan, policy or regulation adopted to reduce GHG emissions.

Section 15064.4 of the Code specifies how significance of GHG emissions is to be evaluated. The process is broken down into quantification of project-related GHG emissions, making a determination of significance, and specification of any appropriate mitigation if impacts are found to be potentially significant. At each of these steps, the new GHG guidelines afford the lead agency with substantial flexibility.

Emissions identification may be quantitative, qualitative or based on performance standards. CEQA guidelines allow the lead agency to "select the model or methodology it considers most appropriate." The most common practice for transportation/combustion GHG emissions quantification is to use a computer model such as CalEEMod, as was used in the ensuing analysis.

The significance of those emissions then must be evaluated; the selection of a threshold of significance must take into consideration what level of GHG emissions would be cumulatively considerable. The guidelines are clear that they do not support a zero net emissions threshold. If the lead agency does not have sufficient expertise in evaluating GHG impacts, it may rely on thresholds adopted by an agency with greater expertise.

On December 5, 2008 the SCAQMD Governing Board adopted an Interim quantitative GHG Significance Threshold for industrial projects where the SCAQMD is the lead agency (e.g., stationary source permit projects, rules, plans, etc.) of 10,000 Metric Tons (MT) CO_2 equivalent/year. In September 2010, the SCAQMD CEQA Significance Thresholds GHG Working Group released revisions which recommended a threshold of 3,000 MT CO_2e for all land use projects. This 3,000 MT/year recommendation has been used as a guideline for this analysis. In the absence of an adopted numerical threshold of significance, project related GHG emissions in excess of the guideline level are presumed to trigger a requirement for enhanced GHG reduction at the project level.

PROJECT RELATED GHG EMISSIONS GENERATION

Construction Activity GHG Emissions

Project construction is assumed to occur over two calendar years. During project construction, the computer model predicts that the construction activities will generate the CO_2e emissions identified in Table 10.

Table 10
Construction Emissions (Metric Tons CO_2e)

	CO_2e
Year 2024	467.4
Year 2025	21.5
Total	489.0
Amortized	**16.3**

CalEEMod Output provided in appendix

SCAQMD GHG emissions policy from construction activities is to amortize emissions over a 30-year lifetime. The amortized level is also provided. GHG impacts from construction are considered individually less-than-significant.

Project Operational GHG Emissions

The input assumptions for operational GHG emissions calculations, and the GHG conversion from consumption to annual regional CO_2e emissions are summarized in the modeling output files found in the appendix of this report.

The total operational and annualized construction emissions for the proposed project are identified in Table 11. The project GHG emissions are considered less-than-significant.

Table 11
Operational Emissions
(Metric Tons CO_2e)

Consumption Source	
Area Sources	0.0
Energy Utilization	322.1
Mobile Source	101.6
Solid Waste Generation	76.8
Water Consumption	103.1
Construction	16.3
Total	**619.9**
Guideline Threshold	3,000

CONSISTENCY WITH GHG PLANS, PROGRAMS AND POLICIES

The City of Westminster has not yet completed a finalized Greenhouse Gas Reduction Plan. The applicable GHG planning document is AB-32. As discussed above, the project is not expected to result in a significant increase in GHG emissions. As a result, the project results in GHG emissions below the recommended SCAQMD 3,000 ton threshold. Therefore, the project would not conflict with any applicable plan, policy, or regulation to reduce GHG emissions.

CALEEMOD2020.4.0 COMPUTER MODEL OUTPUT

- **DAILY EMISISONS**
- **ANNUAL EMISSIONS**

15172 GOLDENWEST CIRCLE - Orange County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

15172 GOLDENWEST CIRCLE

Orange County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Heavy Industry	118.99	1000sqft	2.73	118,990.00	0
Strip Mall	5.00	1000sqft	0.11	5,000.00	0
Parking Lot	147.00	Space	1.32	58,800.00	0
Other Non-Asphalt Surfaces	7.70	1000sqft	0.18	7,700.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	30
Climate Zone	8			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Demo: 20 days, Grading: 8 days, Construction: 230 days, Paving: 18 days

Demolition - 102,043 sf demo

Vehicle Trips - 61 new net trips warehouse =0.51
32 new trip furniture showroom =6.4

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblVehicleTrips	ST_TR	6.42	0.51

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleTrips	ST_TR	42.04	6.40
tblVehicleTrips	SU_TR	5.09	0.51
tblVehicleTrips	SU_TR	20.43	6.40
tblVehicleTrips	WD_TR	3.93	0.51
tblVehicleTrips	WD_TR	44.32	6.40

2.0 Emissions Summary

15172 GOLDENWEST CIRCLE - Orange County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	2.3312	23.6473	21.1022	0.0530	7.2503	0.9795	7.9755	3.4692	0.9107	4.1364	0.0000	5,349.3095	5,349.3095	1.2029	0.2378	5,450.2439
2025	65.0931	13.6648	18.6639	0.0394	1.0924	0.5376	1.6300	0.2942	0.5057	0.7999	0.0000	3,861.1145	3,861.1145	0.6520	0.1001	3,907.2333
Maximum	**65.0931**	**23.6473**	**21.1022**	**0.0530**	**7.2503**	**0.9795**	**7.9755**	**3.4692**	**0.9107**	**4.1364**	**0.0000**	**5,349.3095**	**5,349.3095**	**1.2029**	**0.2378**	**5,450.2439**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	2.3312	23.6473	21.1022	0.0530	2.9299	0.9795	3.6551	1.3801	0.9107	2.0473	0.0000	5,349.3095	5,349.3095	1.2029	0.2378	5,450.2439
2025	65.0931	13.6648	18.6639	0.0394	1.0924	0.5376	1.6300	0.2942	0.5057	0.7999	0.0000	3,861.1145	3,861.1145	0.6520	0.1001	3,907.2333
Maximum	**65.0931**	**23.6473**	**21.1022**	**0.0530**	**2.9299**	**0.9795**	**3.6551**	**1.3801**	**0.9107**	**2.0473**	**0.0000**	**5,349.3095**	**5,349.3095**	**1.2029**	**0.2378**	**5,450.2439**

15172 GOLDENWEST CIRCLE - Orange County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	51.79	0.00	44.98	55.51	0.00	42.32	0.00	0.00	0.00	0.00	0.00	0.00

15172 GOLDENWEST CIRCLE - Orange County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.8011	2.6000e-004	0.0284	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0610	0.0610	1.6000e-004		0.0650
Energy	0.0733	0.6662	0.5596	4.0000e-003		0.0506	0.0506		0.0506	0.0506		799.4142	799.4142	0.0153	0.0147	804.1647
Mobile	0.2489	0.2504	2.5321	6.1400e-003	0.6945	4.0700e-003	0.6986	0.1851	3.7800e-003	0.1889		625.1379	625.1379	0.0357	0.0242	633.2356
Total	**3.1233**	**0.9168**	**3.1201**	**0.0101**	**0.6945**	**0.0548**	**0.7493**	**0.1851**	**0.0545**	**0.2396**		**1,424.6130**	**1,424.6130**	**0.0512**	**0.0388**	**1,437.4653**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.8011	2.6000e-004	0.0284	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0610	0.0610	1.6000e-004		0.0650
Energy	0.0733	0.6662	0.5596	4.0000e-003		0.0506	0.0506		0.0506	0.0506		799.4142	799.4142	0.0153	0.0147	804.1647
Mobile	0.2489	0.2504	2.5321	6.1400e-003	0.6945	4.0700e-003	0.6986	0.1851	3.7800e-003	0.1889		625.1379	625.1379	0.0357	0.0242	633.2356
Total	**3.1233**	**0.9168**	**3.1201**	**0.0101**	**0.6945**	**0.0548**	**0.7493**	**0.1851**	**0.0545**	**0.2396**		**1,424.6130**	**1,424.6130**	**0.0512**	**0.0388**	**1,437.4653**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/8/2024	2/2/2024	5	20	
2	Grading	Grading	2/3/2024	2/14/2024	5	8	
3	Building Construction	Building Construction	2/15/2024	1/1/2025	5	230	
4	Paving	Paving	1/2/2025	1/27/2025	5	18	
5	Architectural Coating	Architectural Coating	1/28/2025	2/20/2025	5	18	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 8

Acres of Paving: 1.5

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 185,985; Non-Residential Outdoor: 61,995; Striped Parking Area: 3,990 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Demolition	Excavators	3	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Excavators	1	8.00	158	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	464.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	80.00	31.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	16.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.0223	0.0000	5.0223	0.7604	0.0000	0.7604			0.0000			0.0000
Off-Road	2.2437	20.8781	19.7073	0.0388		0.9602	0.9602		0.8922	0.8922		3,747.4228	3,747.4228	1.0485		3,773.6345
Total	**2.2437**	**20.8781**	**19.7073**	**0.0388**	**5.0223**	**0.9602**	**5.9825**	**0.7604**	**0.8922**	**1.6526**		**3,747.4228**	**3,747.4228**	**1.0485**		**3,773.6345**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0478	2.7448	0.9687	0.0128	0.4046	0.0186	0.4232	0.1108	0.0178	0.1286		1,463.4240	1,463.4240	0.1516	0.2349	1,537.2144
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
Worker	0.0397	0.0243	0.4262	1.3700e-003	0.1677	8.1000e-004	0.1685	0.0445	7.5000e-004	0.0452		138.4627	138.4627	2.8500e-003	2.8900e-003	139.3950
Total	**0.0875**	**2.7691**	**1.3949**	**0.0142**	**0.5723**	**0.0194**	**0.5916**	**0.1553**	**0.0185**	**0.1738**		**1,601.8867**	**1,601.8867**	**0.1545**	**0.2378**	**1,676.6094**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9587	0.0000	1.9587	0.2966	0.0000	0.2966			0.0000			0.0000
Off-Road	2.2437	20.8781	19.7073	0.0388		0.9602	0.9602		0.8922	0.8922	0.0000	3,747.4228	3,747.4228	1.0485		3,773.6345
Total	**2.2437**	**20.8781**	**19.7073**	**0.0388**	**1.9587**	**0.9602**	**2.9189**	**0.2966**	**0.8922**	**1.1888**	**0.0000**	**3,747.4228**	**3,747.4228**	**1.0485**		**3,773.6345**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0478	2.7448	0.9687	0.0128	0.4046	0.0186	0.4232	0.1108	0.0178	0.1286		1,463.4240	1,463.4240	0.1516	0.2349	1,537.2144
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
Worker	0.0397	0.0243	0.4262	1.3700e-003	0.1677	8.1000e-004	0.1685	0.0445	7.5000e-004	0.0452		138.4627	138.4627	2.8500e-003	2.8900e-003	139.3950
Total	**0.0875**	**2.7691**	**1.3949**	**0.0142**	**0.5723**	**0.0194**	**0.5916**	**0.1553**	**0.0185**	**0.1738**		**1,601.8867**	**1,601.8867**	**0.1545**	**0.2378**	**1,676.6094**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.6617	17.0310	14.7594	0.0297		0.7244	0.7244		0.6665	0.6665		2,873.0541	2,873.0541	0.9292		2,896.2842
Total	**1.6617**	**17.0310**	**14.7594**	**0.0297**	**7.0826**	**0.7244**	**7.8070**	**3.4247**	**0.6665**	**4.0912**		**2,873.0541**	**2,873.0541**	**0.9292**		**2,896.2842**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0397	0.0243	0.4262	1.3700e-003	0.1677	8.1000e-004	0.1685	0.0445	7.5000e-004	0.0452		138.4627	138.4627	2.8500e-003	2.8900e-003	139.3950
Total	**0.0397**	**0.0243**	**0.4262**	**1.3700e-003**	**0.1677**	**8.1000e-004**	**0.1685**	**0.0445**	**7.5000e-004**	**0.0452**		**138.4627**	**138.4627**	**2.8500e-003**	**2.8900e-003**	**139.3950**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.7622	0.0000	2.7622	1.3357	0.0000	1.3357			0.0000			0.0000
Off-Road	1.6617	17.0310	14.7594	0.0297		0.7244	0.7244		0.6665	0.6665	0.0000	2,873.0541	2,873.0541	0.9292		2,896.2842
Total	**1.6617**	**17.0310**	**14.7594**	**0.0297**	**2.7622**	**0.7244**	**3.4866**	**1.3357**	**0.6665**	**2.0021**	**0.0000**	**2,873.0541**	**2,873.0541**	**0.9292**		**2,896.2842**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0397	0.0243	0.4262	1.3700e-003	0.1677	8.1000e-004	0.1685	0.0445	7.5000e-004	0.0452		138.4627	138.4627	2.8500e-003	2.8900e-003	139.3950
Total	**0.0397**	**0.0243**	**0.4262**	**1.3700e-003**	**0.1677**	**8.1000e-004**	**0.1685**	**0.0445**	**7.5000e-004**	**0.0452**		**138.4627**	**138.4627**	**2.8500e-003**	**2.8900e-003**	**139.3950**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0308	1.0832	0.4471	5.4800e-003	0.1982	5.8300e-003	0.2041	0.0571	5.5800e-003	0.0626		602.5977	602.5977	0.0368	0.0868	629.3929
Worker	0.2117	0.1294	2.2733	7.3100e-003	0.8942	4.3300e-003	0.8985	0.2372	3.9800e-003	0.2411		738.4679	738.4679	0.0152	0.0154	743.4399
Total	**0.2425**	**1.2127**	**2.7204**	**0.0128**	**1.0924**	**0.0102**	**1.1026**	**0.2942**	**9.5600e-003**	**0.3038**		**1,341.0657**	**1,341.0657**	**0.0520**	**0.1022**	**1,372.8329**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0308	1.0832	0.4471	5.4800e-003	0.1982	5.8300e-003	0.2041	0.0571	5.5800e-003	0.0626		602.5977	602.5977	0.0368	0.0868	629.3929
Worker	0.2117	0.1294	2.2733	7.3100e-003	0.8942	4.3300e-003	0.8985	0.2372	3.9800e-003	0.2411		738.4679	738.4679	0.0152	0.0154	743.4399
Total	**0.2425**	**1.2127**	**2.7204**	**0.0128**	**1.0924**	**0.0102**	**1.1026**	**0.2942**	**9.5600e-003**	**0.3038**		**1,341.0657**	**1,341.0657**	**0.0520**	**0.1022**	**1,372.8329**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0304	1.0779	0.4453	5.3600e-003	0.1982	5.8700e-003	0.2041	0.0571	5.6100e-003	0.0627		591.3165	591.3165	0.0372	0.0856	617.7465
Worker	0.1998	0.1172	2.1339	7.0600e-003	0.8942	4.1400e-003	0.8984	0.2372	3.8100e-003	0.2410		713.3237	713.3237	0.0138	0.0145	717.9888
Total	**0.2302**	**1.1951**	**2.5792**	**0.0124**	**1.0924**	**0.0100**	**1.1024**	**0.2942**	**9.4200e-003**	**0.3036**		**1,304.6402**	**1,304.6402**	**0.0511**	**0.1001**	**1,335.7352**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0304	1.0779	0.4453	5.3600e-003	0.1982	5.8700e-003	0.2041	0.0571	5.6100e-003	0.0627		591.3165	591.3165	0.0372	0.0856	617.7465
Worker	0.1998	0.1172	2.1339	7.0600e-003	0.8942	4.1400e-003	0.8984	0.2372	3.8100e-003	0.2410		713.3237	713.3237	0.0138	0.0145	717.9888
Total	**0.2302**	**1.1951**	**2.5792**	**0.0124**	**1.0924**	**0.0100**	**1.1024**	**0.2942**	**9.4200e-003**	**0.3036**		**1,304.6402**	**1,304.6402**	**0.0511**	**0.1001**	**1,335.7352**

15172 GOLDENWEST CIRCLE - Orange County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8197	7.5321	12.1778	0.0189		0.3524	0.3524		0.3259	0.3259		1,805.3926	1,805.3926	0.5673		1,819.5741
Paving	0.1921					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0119**	**7.5321**	**12.1778**	**0.0189**		**0.3524**	**0.3524**		**0.3259**	**0.3259**		**1,805.3926**	**1,805.3926**	**0.5673**		**1,819.5741**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0500	0.0293	0.5335	1.7600e-003	0.2236	1.0300e-003	0.2246	0.0593	9.5000e-004	0.0602		178.3309	178.3309	3.4500e-003	3.6200e-003	179.4972
Total	**0.0500**	**0.0293**	**0.5335**	**1.7600e-003**	**0.2236**	**1.0300e-003**	**0.2246**	**0.0593**	**9.5000e-004**	**0.0602**		**178.3309**	**178.3309**	**3.4500e-003**	**3.6200e-003**	**179.4972**

15172 GOLDENWEST CIRCLE - Orange County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8197	7.5321	12.1778	0.0189		0.3524	0.3524		0.3259	0.3259	0.0000	1,805.3926	1,805.3926	0.5673		1,819.5741
Paving	0.1921					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0119**	**7.5321**	**12.1778**	**0.0189**		**0.3524**	**0.3524**		**0.3259**	**0.3259**	**0.0000**	**1,805.3926**	**1,805.3926**	**0.5673**		**1,819.5741**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0500	0.0293	0.5335	1.7600e-003	0.2236	1.0300e-003	0.2246	0.0593	9.5000e-004	0.0602		178.3309	178.3309	3.4500e-003	3.6200e-003	179.4972
Total	**0.0500**	**0.0293**	**0.5335**	**1.7600e-003**	**0.2236**	**1.0300e-003**	**0.2246**	**0.0593**	**9.5000e-004**	**0.0602**		**178.3309**	**178.3309**	**3.4500e-003**	**3.6200e-003**	**179.4972**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	64.8823					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**65.0531**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0400	0.0234	0.4268	1.4100e-003	0.1788	8.3000e-004	0.1797	0.0474	7.6000e-004	0.0482		142.6647	142.6647	2.7600e-003	2.9000e-003	143.5978
Total	**0.0400**	**0.0234**	**0.4268**	**1.4100e-003**	**0.1788**	**8.3000e-004**	**0.1797**	**0.0474**	**7.6000e-004**	**0.0482**		**142.6647**	**142.6647**	**2.7600e-003**	**2.9000e-003**	**143.5978**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Architectural Coating - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	64.8823					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**65.0531**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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
Worker	0.0400	0.0234	0.4268	1.4100e-003	0.1788	8.3000e-004	0.1797	0.0474	7.6000e-004	0.0482		142.6647	142.6647	2.7600e-003	2.9000e-003	143.5978
Total	**0.0400**	**0.0234**	**0.4268**	**1.4100e-003**	**0.1788**	**8.3000e-004**	**0.1797**	**0.0474**	**7.6000e-004**	**0.0482**		**142.6647**	**142.6647**	**2.7600e-003**	**2.9000e-003**	**143.5978**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.2489	0.2504	2.5321	6.1400e-003	0.6945	4.0700e-003	0.6986	0.1851	3.7800e-003	0.1889		625.1379	625.1379	0.0357	0.0242	633.2356
Unmitigated	0.2489	0.2504	2.5321	6.1400e-003	0.6945	4.0700e-003	0.6986	0.1851	3.7800e-003	0.1889		625.1379	625.1379	0.0357	0.0242	633.2356

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Heavy Industry	60.68	60.68	60.68	268,730	268,730
Strip Mall	32.00	32.00	32.00	60,883	60,883
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	92.68	92.68	92.68	329,613	329,613

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Heavy Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Heavy Industry	0.547453	0.060181	0.185039	0.126487	0.024236	0.006679	0.014707	0.004926	0.000662	0.000378	0.024745	0.000705	0.003801
Strip Mall	0.547453	0.060181	0.185039	0.126487	0.024236	0.006679	0.014707	0.004926	0.000662	0.000378	0.024745	0.000705	0.003801
Other Non-Asphalt Surfaces	0.547453	0.060181	0.185039	0.126487	0.024236	0.006679	0.014707	0.004926	0.000662	0.000378	0.024745	0.000705	0.003801
Parking Lot	0.547453	0.060181	0.185039	0.126487	0.024236	0.006679	0.014707	0.004926	0.000662	0.000378	0.024745	0.000705	0.003801

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0733	0.6662	0.5596	4.0000e-003		0.0506	0.0506		0.0506	0.0506		799.4142	799.4142	0.0153	0.0147	804.1647
NaturalGas Unmitigated	0.0733	0.6662	0.5596	4.0000e-003		0.0506	0.0506		0.0506	0.0506		799.4142	799.4142	0.0153	0.0147	804.1647

15172 GOLDENWEST CIRCLE - Orange County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Heavy Industry	6767.76	0.0730	0.6635	0.5573	3.9800e-003		0.0504	0.0504		0.0504	0.0504		796.2071	796.2071	0.0153	0.0146	800.9385
Other Non-Asphalt Surfaces	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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	27.2603	2.9000e-004	2.6700e-003	2.2400e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		3.2071	3.2071	6.0000e-005	6.0000e-005	3.2262
Total		**0.0733**	**0.6662**	**0.5596**	**4.0000e-003**		**0.0506**	**0.0506**		**0.0506**	**0.0506**		**799.4142**	**799.4142**	**0.0153**	**0.0147**	**804.1647**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Heavy Industry	6.76776	0.0730	0.6635	0.5573	3.9800e-003		0.0504	0.0504		0.0504	0.0504		796.2071	796.2071	0.0153	0.0146	800.9385
Other Non-Asphalt Surfaces	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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.0272603	2.9000e-004	2.6700e-003	2.2400e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		3.2071	3.2071	6.0000e-005	6.0000e-005	3.2262
Total		**0.0733**	**0.6662**	**0.5596**	**4.0000e-003**		**0.0506**	**0.0506**		**0.0506**	**0.0506**		**799.4142**	**799.4142**	**0.0153**	**0.0147**	**804.1647**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.8011	2.6000e-004	0.0284	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0610	0.0610	1.6000e-004		0.0650
Unmitigated	2.8011	2.6000e-004	0.0284	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0610	0.0610	1.6000e-004		0.0650

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3200					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.4786					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.6100e-003	2.6000e-004	0.0284	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0610	0.0610	1.6000e-004		0.0650
Total	**2.8011**	**2.6000e-004**	**0.0284**	**0.0000**		**1.0000e-004**	**1.0000e-004**		**1.0000e-004**	**1.0000e-004**		**0.0610**	**0.0610**	**1.6000e-004**		**0.0650**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3200					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.4786					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.6100e-003	2.6000e-004	0.0284	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0610	0.0610	1.6000e-004		0.0650
Total	**2.8011**	**2.6000e-004**	**0.0284**	**0.0000**		**1.0000e-004**	**1.0000e-004**		**1.0000e-004**	**1.0000e-004**		**0.0610**	**0.0610**	**1.6000e-004**		**0.0650**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

15172 GOLDENWEST CIRCLE

Orange County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Heavy Industry	118.99	1000sqft	2.73	118,990.00	0
Strip Mall	5.00	1000sqft	0.11	5,000.00	0
Parking Lot	147.00	Space	1.32	58,800.00	0
Other Non-Asphalt Surfaces	7.70	1000sqft	0.18	7,700.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	30
Climate Zone	8			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Demo: 20 days, Grading: 8 days, Construction: 230 days, Paving: 18 days

Demolition - 102,043 sf demo

Vehicle Trips - 61 new net trips warehouse =0.51
32 new trip furniture showroom =6.4

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblVehicleTrips	ST_TR	6.42	0.51

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleTrips	ST_TR	42.04	6.40
tblVehicleTrips	SU_TR	5.09	0.51
tblVehicleTrips	SU_TR	20.43	6.40
tblVehicleTrips	WD_TR	3.93	0.51
tblVehicleTrips	WD_TR	44.32	6.40

2.0 Emissions Summary

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
2024	0.2264	1.9920	2.4228	5.1700e-003	0.2078	0.0841	0.2919	0.0562	0.0789	0.1351	0.0000	461.5335	461.5335	0.0825	0.0129	467.4491
2025	0.5962	0.0855	0.1434	2.4000e-004	4.0900e-003	3.9200e-003	8.0100e-003	1.0900e-003	3.6700e-003	4.7500e-003	0.0000	21.3083	21.3083	5.1000e-003	1.0000e-004	21.4667
Maximum	**0.5962**	**1.9920**	**2.4228**	**5.1700e-003**	**0.2078**	**0.0841**	**0.2919**	**0.0562**	**0.0789**	**0.1351**	**0.0000**	**461.5335**	**461.5335**	**0.0825**	**0.0129**	**467.4491**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.2264	1.9920	2.4228	5.1700e-003	0.1599	0.0841	0.2439	0.0432	0.0789	0.1221	0.0000	461.5332	461.5332	0.0825	0.0129	467.4487
2025	0.5962	0.0855	0.1434	2.4000e-004	4.0900e-003	3.9200e-003	8.0100e-003	1.0900e-003	3.6700e-003	4.7500e-003	0.0000	21.3083	21.3083	5.1000e-003	1.0000e-004	21.4667
Maximum	**0.5962**	**1.9920**	**2.4228**	**5.1700e-003**	**0.1599**	**0.0841**	**0.2439**	**0.0432**	**0.0789**	**0.1221**	**0.0000**	**461.5332**	**461.5332**	**0.0825**	**0.0129**	**467.4487**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**22.62**	**0.00**	**15.98**	**22.69**	**0.00**	**9.29**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-8-2024**	**4-7-2024**	0.6340	0.6340
2	**4-8-2024**	**7-7-2024**	0.5320	0.5320
3	**7-8-2024**	**10-7-2024**	0.5381	0.5381
4	**10-8-2024**	**1-7-2025**	0.5234	0.5234
5	**1-8-2025**	**4-7-2025**	0.6297	0.6297
		Highest	0.6340	0.6340

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5111	3.0000e-005	3.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.9200e-003	6.9200e-003	2.0000e-005	0.0000	7.3700e-003
Energy	0.0134	0.1216	0.1021	7.3000e-004		9.2400e-003	9.2400e-003		9.2400e-003	9.2400e-003	0.0000	320.3874	320.3874	0.0184	4.3500e-003	322.1440
Mobile	0.0441	0.0496	0.4584	1.0800e-003	0.1242	7.4000e-004	0.1249	0.0331	6.9000e-004	0.0338	0.0000	100.2416	100.2416	6.0400e-003	4.1800e-003	101.6375
Waste						0.0000	0.0000		0.0000	0.0000	31.0170	0.0000	31.0170	1.8331	0.0000	76.8434
Water						0.0000	0.0000		0.0000	0.0000	8.8472	64.8439	73.6911	0.9142	0.0221	103.1369
Total	**0.5685**	**0.1712**	**0.5641**	**1.8100e-003**	**0.1242**	**9.9900e-003**	**0.1342**	**0.0331**	**9.9400e-003**	**0.0431**	**39.8642**	**485.4798**	**525.3440**	**2.7717**	**0.0307**	**603.7690**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5111	3.0000e-005	3.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.9200e-003	6.9200e-003	2.0000e-005	0.0000	7.3700e-003
Energy	0.0134	0.1216	0.1021	7.3000e-004		9.2400e-003	9.2400e-003		9.2400e-003	9.2400e-003	0.0000	320.3874	320.3874	0.0184	4.3500e-003	322.1440
Mobile	0.0441	0.0496	0.4584	1.0800e-003	0.1242	7.4000e-004	0.1249	0.0331	6.9000e-004	0.0338	0.0000	100.2416	100.2416	6.0400e-003	4.1800e-003	101.6375
Waste						0.0000	0.0000		0.0000	0.0000	31.0170	0.0000	31.0170	1.8331	0.0000	76.8434
Water						0.0000	0.0000		0.0000	0.0000	8.8472	64.8439	73.6911	0.9142	0.0221	103.1369
Total	**0.5685**	**0.1712**	**0.5641**	**1.8100e-003**	**0.1242**	**9.9900e-003**	**0.1342**	**0.0331**	**9.9400e-003**	**0.0431**	**39.8642**	**485.4798**	**525.3440**	**2.7717**	**0.0307**	**603.7690**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/8/2024	2/2/2024	5	20	
2	Grading	Grading	2/3/2024	2/14/2024	5	8	
3	Building Construction	Building Construction	2/15/2024	1/1/2025	5	230	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4	Paving	Paving	1/2/2025	1/27/2025	5	18	
5	Architectural Coating	Architectural Coating	1/28/2025	2/20/2025	5	18	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 8

Acres of Paving: 1.5

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 185,985; Non-Residential Outdoor: 61,995; Striped Parking Area: 3,990 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Demolition	Excavators	3	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Excavators	1	8.00	158	0.38

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	464.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	80.00	31.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	16.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2024

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					0.0502	0.0000	0.0502	7.6000e-003	0.0000	7.6000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0224	0.2088	0.1971	3.9000e-004		9.6000e-003	9.6000e-003		8.9200e-003	8.9200e-003	0.0000	33.9961	33.9961	9.5100e-003	0.0000	34.2338
Total	**0.0224**	**0.2088**	**0.1971**	**3.9000e-004**	**0.0502**	**9.6000e-003**	**0.0598**	**7.6000e-003**	**8.9200e-003**	**0.0165**	**0.0000**	**33.9961**	**33.9961**	**9.5100e-003**	**0.0000**	**34.2338**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.7000e-004	0.0289	9.7300e-003	1.3000e-004	3.9800e-003	1.9000e-004	4.1700e-003	1.0900e-003	1.8000e-004	1.2700e-003	0.0000	13.2811	13.2811	1.3700e-003	2.1300e-003	13.9508
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-004	2.7000e-004	4.0600e-003	1.0000e-005	1.6500e-003	1.0000e-005	1.6500e-003	4.4000e-004	1.0000e-005	4.4000e-004	0.0000	1.2123	1.2123	3.0000e-005	3.0000e-005	1.2214
Total	**8.7000e-004**	**0.0292**	**0.0138**	**1.4000e-004**	**5.6300e-003**	**2.0000e-004**	**5.8200e-003**	**1.5300e-003**	**1.9000e-004**	**1.7100e-003**	**0.0000**	**14.4934**	**14.4934**	**1.4000e-003**	**2.1600e-003**	**15.1722**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0196	0.0000	0.0196	2.9700e-003	0.0000	2.9700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0224	0.2088	0.1971	3.9000e-004		9.6000e-003	9.6000e-003		8.9200e-003	8.9200e-003	0.0000	33.9960	33.9960	9.5100e-003	0.0000	34.2338
Total	**0.0224**	**0.2088**	**0.1971**	**3.9000e-004**	**0.0196**	**9.6000e-003**	**0.0292**	**2.9700e-003**	**8.9200e-003**	**0.0119**	**0.0000**	**33.9960**	**33.9960**	**9.5100e-003**	**0.0000**	**34.2338**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.7000e-004	0.0289	9.7300e-003	1.3000e-004	3.9800e-003	1.9000e-004	4.1700e-003	1.0900e-003	1.8000e-004	1.2700e-003	0.0000	13.2811	13.2811	1.3700e-003	2.1300e-003	13.9508
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-004	2.7000e-004	4.0600e-003	1.0000e-005	1.6500e-003	1.0000e-005	1.6500e-003	4.4000e-004	1.0000e-005	4.4000e-004	0.0000	1.2123	1.2123	3.0000e-005	3.0000e-005	1.2214
Total	**8.7000e-004**	**0.0292**	**0.0138**	**1.4000e-004**	**5.6300e-003**	**2.0000e-004**	**5.8200e-003**	**1.5300e-003**	**1.9000e-004**	**1.7100e-003**	**0.0000**	**14.4934**	**14.4934**	**1.4000e-003**	**2.1600e-003**	**15.1722**

3.3 Grading - 2024

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					0.0283	0.0000	0.0283	0.0137	0.0000	0.0137	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6500e-003	0.0681	0.0590	1.2000e-004		2.9000e-003	2.9000e-003		2.6700e-003	2.6700e-003	0.0000	10.4256	10.4256	3.3700e-003	0.0000	10.5099
Total	**6.6500e-003**	**0.0681**	**0.0590**	**1.2000e-004**	**0.0283**	**2.9000e-003**	**0.0312**	**0.0137**	**2.6700e-003**	**0.0164**	**0.0000**	**10.4256**	**10.4256**	**3.3700e-003**	**0.0000**	**10.5099**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2024

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	1.6000e-004	1.1000e-004	1.6300e-003	1.0000e-005	6.6000e-004	0.0000	6.6000e-004	1.7000e-004	0.0000	1.8000e-004	0.0000	0.4849	0.4849	1.0000e-005	1.0000e-005	0.4886
Total	**1.6000e-004**	**1.1000e-004**	**1.6300e-003**	**1.0000e-005**	**6.6000e-004**	**0.0000**	**6.6000e-004**	**1.7000e-004**	**0.0000**	**1.8000e-004**	**0.0000**	**0.4849**	**0.4849**	**1.0000e-005**	**1.0000e-005**	**0.4886**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0111	0.0000	0.0111	5.3400e-003	0.0000	5.3400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6500e-003	0.0681	0.0590	1.2000e-004		2.9000e-003	2.9000e-003		2.6700e-003	2.6700e-003	0.0000	10.4256	10.4256	3.3700e-003	0.0000	10.5099
Total	**6.6500e-003**	**0.0681**	**0.0590**	**1.2000e-004**	**0.0111**	**2.9000e-003**	**0.0140**	**5.3400e-003**	**2.6700e-003**	**8.0100e-003**	**0.0000**	**10.4256**	**10.4256**	**3.3700e-003**	**0.0000**	**10.5099**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2024

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	1.6000e-004	1.1000e-004	1.6300e-003	1.0000e-005	6.6000e-004	0.0000	6.6000e-004	1.7000e-004	0.0000	1.8000e-004	0.0000	0.4849	0.4849	1.0000e-005	1.0000e-005	0.4886
Total	**1.6000e-004**	**1.1000e-004**	**1.6300e-003**	**1.0000e-005**	**6.6000e-004**	**0.0000**	**6.6000e-004**	**1.7000e-004**	**0.0000**	**1.8000e-004**	**0.0000**	**0.4849**	**0.4849**	**1.0000e-005**	**1.0000e-005**	**0.4886**

3.4 Building Construction - 2024

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	0.1685	1.5393	1.8511	3.0900e-003		0.0702	0.0702		0.0661	0.0661	0.0000	265.4672	265.4672	0.0628	0.0000	267.0366
Total	**0.1685**	**1.5393**	**1.8511**	**3.0900e-003**		**0.0702**	**0.0702**		**0.0661**	**0.0661**	**0.0000**	**265.4672**	**265.4672**	**0.0628**	**0.0000**	**267.0366**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.4700e-003	0.1299	0.0519	6.3000e-004	0.0224	6.7000e-004	0.0230	6.4500e-003	6.4000e-004	7.0900e-003	0.0000	62.6332	62.6332	3.8200e-003	9.0300e-003	65.4200
Worker	0.0243	0.0166	0.2482	8.1000e-004	0.1006	5.0000e-004	0.1011	0.0267	4.6000e-004	0.0272	0.0000	74.0332	74.0332	1.6200e-003	1.7300e-003	74.5880
Total	**0.0278**	**0.1465**	**0.3001**	**1.4400e-003**	**0.1229**	**1.1700e-003**	**0.1241**	**0.0332**	**1.1000e-003**	**0.0343**	**0.0000**	**136.6663**	**136.6663**	**5.4400e-003**	**0.0108**	**140.0080**

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	0.1685	1.5393	1.8511	3.0900e-003		0.0702	0.0702		0.0661	0.0661	0.0000	265.4669	265.4669	0.0628	0.0000	267.0363
Total	**0.1685**	**1.5393**	**1.8511**	**3.0900e-003**		**0.0702**	**0.0702**		**0.0661**	**0.0661**	**0.0000**	**265.4669**	**265.4669**	**0.0628**	**0.0000**	**267.0363**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.4700e-003	0.1299	0.0519	6.3000e-004	0.0224	6.7000e-004	0.0230	6.4500e-003	6.4000e-004	7.0900e-003	0.0000	62.6332	62.6332	3.8200e-003	9.0300e-003	65.4200
Worker	0.0243	0.0166	0.2482	8.1000e-004	0.1006	5.0000e-004	0.1011	0.0267	4.6000e-004	0.0272	0.0000	74.0332	74.0332	1.6200e-003	1.7300e-003	74.5880
Total	**0.0278**	**0.1465**	**0.3001**	**1.4400e-003**	**0.1229**	**1.1700e-003**	**0.1241**	**0.0332**	**1.1000e-003**	**0.0343**	**0.0000**	**136.6663**	**136.6663**	**5.4400e-003**	**0.0108**	**140.0080**

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.8000e-004	6.2300e-003	8.0400e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.5000e-004	2.5000e-004	0.0000	1.1596	1.1596	2.7000e-004	0.0000	1.1664
Total	**6.8000e-004**	**6.2300e-003**	**8.0400e-003**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.5000e-004**	**2.5000e-004**	**0.0000**	**1.1596**	**1.1596**	**2.7000e-004**	**0.0000**	**1.1664**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-005	5.6000e-004	2.3000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.2684	0.2684	2.0000e-005	4.0000e-005	0.2804
Worker	1.0000e-004	7.0000e-005	1.0200e-003	0.0000	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3123	0.3123	1.0000e-005	1.0000e-005	0.3146
Total	**1.1000e-004**	**6.3000e-004**	**1.2500e-003**	**0.0000**	**5.4000e-004**	**0.0000**	**5.4000e-004**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.5807**	**0.5807**	**3.0000e-005**	**5.0000e-005**	**0.5950**

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	6.8000e-004	6.2300e-003	8.0400e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.5000e-004	2.5000e-004	0.0000	1.1596	1.1596	2.7000e-004	0.0000	1.1664
Total	**6.8000e-004**	**6.2300e-003**	**8.0400e-003**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.5000e-004**	**2.5000e-004**	**0.0000**	**1.1596**	**1.1596**	**2.7000e-004**	**0.0000**	**1.1664**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-005	5.6000e-004	2.3000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.2684	0.2684	2.0000e-005	4.0000e-005	0.2804
Worker	1.0000e-004	7.0000e-005	1.0200e-003	0.0000	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3123	0.3123	1.0000e-005	1.0000e-005	0.3146
Total	**1.1000e-004**	**6.3000e-004**	**1.2500e-003**	**0.0000**	**5.4000e-004**	**0.0000**	**5.4000e-004**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.5807**	**0.5807**	**3.0000e-005**	**5.0000e-005**	**0.5950**

3.5 Paving - 2025

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	7.3800e-003	0.0678	0.1096	1.7000e-004		3.1700e-003	3.1700e-003		2.9300e-003	2.9300e-003	0.0000	14.7404	14.7404	4.6300e-003	0.0000	14.8562
Paving	1.7300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.1100e-003**	**0.0678**	**0.1096**	**1.7000e-004**		**3.1700e-003**	**3.1700e-003**		**2.9300e-003**	**2.9300e-003**	**0.0000**	**14.7404**	**14.7404**	**4.6300e-003**	**0.0000**	**14.8562**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e-004	3.0000e-004	4.5800e-003	2.0000e-005	1.9800e-003	1.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.3000e-004	0.0000	1.4054	1.4054	3.0000e-005	3.0000e-005	1.4156
Total	**4.5000e-004**	**3.0000e-004**	**4.5800e-003**	**2.0000e-005**	**1.9800e-003**	**1.0000e-005**	**1.9900e-003**	**5.2000e-004**	**1.0000e-005**	**5.3000e-004**	**0.0000**	**1.4054**	**1.4054**	**3.0000e-005**	**3.0000e-005**	**1.4156**

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	7.3800e-003	0.0678	0.1096	1.7000e-004		3.1700e-003	3.1700e-003		2.9300e-003	2.9300e-003	0.0000	14.7404	14.7404	4.6300e-003	0.0000	14.8562
Paving	1.7300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.1100e-003**	**0.0678**	**0.1096**	**1.7000e-004**		**3.1700e-003**	**3.1700e-003**		**2.9300e-003**	**2.9300e-003**	**0.0000**	**14.7404**	**14.7404**	**4.6300e-003**	**0.0000**	**14.8562**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Paving - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e-004	3.0000e-004	4.5800e-003	2.0000e-005	1.9800e-003	1.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.3000e-004	0.0000	1.4054	1.4054	3.0000e-005	3.0000e-005	1.4156
Total	**4.5000e-004**	**3.0000e-004**	**4.5800e-003**	**2.0000e-005**	**1.9800e-003**	**1.0000e-005**	**1.9900e-003**	**5.2000e-004**	**1.0000e-005**	**5.3000e-004**	**0.0000**	**1.4054**	**1.4054**	**3.0000e-005**	**3.0000e-005**	**1.4156**

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5839					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5400e-003	0.0103	0.0163	3.0000e-005		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004	0.0000	2.2979	2.2979	1.3000e-004	0.0000	2.3011
Total	**0.5855**	**0.0103**	**0.0163**	**3.0000e-005**		**4.6000e-004**	**4.6000e-004**		**4.6000e-004**	**4.6000e-004**	**0.0000**	**2.2979**	**2.2979**	**1.3000e-004**	**0.0000**	**2.3011**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Architectural Coating - 2025

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	3.6000e-004	2.4000e-004	3.6600e-003	1.0000e-005	1.5800e-003	1.0000e-005	1.5900e-003	4.2000e-004	1.0000e-005	4.3000e-004	0.0000	1.1243	1.1243	2.0000e-005	3.0000e-005	1.1325
Total	**3.6000e-004**	**2.4000e-004**	**3.6600e-003**	**1.0000e-005**	**1.5800e-003**	**1.0000e-005**	**1.5900e-003**	**4.2000e-004**	**1.0000e-005**	**4.3000e-004**	**0.0000**	**1.1243**	**1.1243**	**2.0000e-005**	**3.0000e-005**	**1.1325**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5839					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5400e-003	0.0103	0.0163	3.0000e-005		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004	0.0000	2.2979	2.2979	1.3000e-004	0.0000	2.3011
Total	**0.5855**	**0.0103**	**0.0163**	**3.0000e-005**		**4.6000e-004**	**4.6000e-004**		**4.6000e-004**	**4.6000e-004**	**0.0000**	**2.2979**	**2.2979**	**1.3000e-004**	**0.0000**	**2.3011**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Architectural Coating - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6000e-004	2.4000e-004	3.6600e-003	1.0000e-005	1.5800e-003	1.0000e-005	1.5900e-003	4.2000e-004	1.0000e-005	4.3000e-004	0.0000	1.1243	1.1243	2.0000e-005	3.0000e-005	1.1325
Total	**3.6000e-004**	**2.4000e-004**	**3.6600e-003**	**1.0000e-005**	**1.5800e-003**	**1.0000e-005**	**1.5900e-003**	**4.2000e-004**	**1.0000e-005**	**4.3000e-004**	**0.0000**	**1.1243**	**1.1243**	**2.0000e-005**	**3.0000e-005**	**1.1325**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0441	0.0496	0.4584	1.0800e-003	0.1242	7.4000e-004	0.1249	0.0331	6.9000e-004	0.0338	0.0000	100.2416	100.2416	6.0400e-003	4.1800e-003	101.6375
Unmitigated	0.0441	0.0496	0.4584	1.0800e-003	0.1242	7.4000e-004	0.1249	0.0331	6.9000e-004	0.0338	0.0000	100.2416	100.2416	6.0400e-003	4.1800e-003	101.6375

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Heavy Industry	60.68	60.68	60.68	268,730	268,730
Strip Mall	32.00	32.00	32.00	60,883	60,883
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	92.68	92.68	92.68	329,613	329,613

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Heavy Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Heavy Industry	0.547453	0.060181	0.185039	0.126487	0.024236	0.006679	0.014707	0.004926	0.000662	0.000378	0.024745	0.000705	0.003801
Strip Mall	0.547453	0.060181	0.185039	0.126487	0.024236	0.006679	0.014707	0.004926	0.000662	0.000378	0.024745	0.000705	0.003801
Other Non-Asphalt Surfaces	0.547453	0.060181	0.185039	0.126487	0.024236	0.006679	0.014707	0.004926	0.000662	0.000378	0.024745	0.000705	0.003801
Parking Lot	0.547453	0.060181	0.185039	0.126487	0.024236	0.006679	0.014707	0.004926	0.000662	0.000378	0.024745	0.000705	0.003801

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	188.0355	188.0355	0.0159	1.9200e-003	189.0055
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	188.0355	188.0355	0.0159	1.9200e-003	189.0055
NaturalGas Mitigated	0.0134	0.1216	0.1021	7.3000e-004		9.2400e-003	9.2400e-003		9.2400e-003	9.2400e-003	0.0000	132.3520	132.3520	2.5400e-003	2.4300e-003	133.1385
NaturalGas Unmitigated	0.0134	0.1216	0.1021	7.3000e-004		9.2400e-003	9.2400e-003		9.2400e-003	9.2400e-003	0.0000	132.3520	132.3520	2.5400e-003	2.4300e-003	133.1385

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Heavy Industry	2.47023e+006	0.0133	0.1211	0.1017	7.3000e-004		9.2000e-003	9.2000e-003		9.2000e-003	9.2000e-003	0.0000	131.8210	131.8210	2.5300e-003	2.4200e-003	132.6044
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	9950	5.0000e-005	4.9000e-004	4.1000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.5310	0.5310	1.0000e-005	1.0000e-005	0.5341
Total		**0.0134**	**0.1216**	**0.1021**	**7.3000e-004**		**9.2400e-003**	**9.2400e-003**		**9.2400e-003**	**9.2400e-003**	**0.0000**	**132.3520**	**132.3520**	**2.5400e-003**	**2.4300e-003**	**133.1385**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Heavy Industry	2.47023e+006	0.0133	0.1211	0.1017	7.3000e-004		9.2000e-003	9.2000e-003		9.2000e-003	9.2000e-003	0.0000	131.8210	131.8210	2.5300e-003	2.4200e-003	132.6044
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	9950	5.0000e-005	4.9000e-004	4.1000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.5310	0.5310	1.0000e-005	1.0000e-005	0.5341
Total		**0.0134**	**0.1216**	**0.1021**	**7.3000e-004**		**9.2400e-003**	**9.2400e-003**		**9.2400e-003**	**9.2400e-003**	**0.0000**	**132.3520**	**132.3520**	**2.5400e-003**	**2.4300e-003**	**133.1385**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Heavy Industry	984047	174.5164	0.0147	1.7900e-003	175.4167
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	20580	3.6498	3.1000e-004	4.0000e-005	3.6686
Strip Mall	55650	9.8693	8.3000e-004	1.0000e-004	9.9202
Total		**188.0355**	**0.0159**	**1.9300e-003**	**189.0055**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Heavy Industry	984047	174.5164	0.0147	1.7900e-003	175.4167
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	20580	3.6498	3.1000e-004	4.0000e-005	3.6686
Strip Mall	55650	9.8693	8.3000e-004	1.0000e-004	9.9202
Total		**188.0355**	**0.0159**	**1.9300e-003**	**189.0055**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5111	3.0000e-005	3.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.9200e-003	6.9200e-003	2.0000e-005	0.0000	7.3700e-003
Unmitigated	0.5111	3.0000e-005	3.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.9200e-003	6.9200e-003	2.0000e-005	0.0000	7.3700e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0584					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4523					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.3000e-004	3.0000e-005	3.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.9200e-003	6.9200e-003	2.0000e-005	0.0000	7.3700e-003
Total	**0.5111**	**3.0000e-005**	**3.5500e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**6.9200e-003**	**6.9200e-003**	**2.0000e-005**	**0.0000**	**7.3700e-003**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0584					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4523					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.3000e-004	3.0000e-005	3.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.9200e-003	6.9200e-003	2.0000e-005	0.0000	7.3700e-003
Total	**0.5111**	**3.0000e-005**	**3.5500e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**6.9200e-003**	**6.9200e-003**	**2.0000e-005**	**0.0000**	**7.3700e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	73.6911	0.9142	0.0221	103.1369
Unmitigated	73.6911	0.9142	0.0221	103.1369

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Heavy Industry	27.5164 / 0	72.2711	0.9020	0.0218	101.3235
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.370363 / 0.226996	1.4200	0.0122	3.0000e-004	1.8133
Total		**73.6911**	**0.9142**	**0.0221**	**103.1369**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Heavy Industry	27.5164 / 0	72.2711	0.9020	0.0218	101.3235
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.370363 / 0.226996	1.4200	0.0122	3.0000e-004	1.8133
Total		**73.6911**	**0.9142**	**0.0221**	**103.1369**

8.0 Waste Detail

8.1 Mitigation Measures Waste

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	31.0170	1.8331	0.0000	76.8434
Unmitigated	31.0170	1.8331	0.0000	76.8434

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Heavy Industry	147.55	29.9513	1.7701	0.0000	74.2031
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	5.25	1.0657	0.0630	0.0000	2.6402
Total		**31.0170**	**1.8331**	**0.0000**	**76.8434**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Heavy Industry	147.55	29.9513	1.7701	0.0000	74.2031
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	5.25	1.0657	0.0630	0.0000	2.6402
Total		**31.0170**	**1.8331**	**0.0000**	**76.8434**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Equipment Type	Number

11.0 Vegetation

Appendix C –
Noise Impact Analysis

NOISE IMPACT ANALYSIS

15172 GOLDENWEST CIRCLE COMMERCIAL PROJECT

WESTMINSTER, CALIFORNIA

Prepared by:
Sara Friedman-Gerrick
Gerrick Environmental

Prepared for:

Hodge & Associates
Attn: Bill Hodge
1112 Wendy Avenue
Bid Bear City, CA 92314

Date:

October 2, 2023

Project No.: P23-019 N

BACKGROUND

The site is located at 15172 Goldenwest Circle, in the City of Westminster. A 102,043 sq. ft. warehouse exists on the property and provides storage for large tractor-trailer vehicles. The project proposes to replace the existing warehouse facility with a new 123,990 sf warehouse. The project's main use will be to store furniture, but it will also include 2,910 sq. ft. of office space and a 5,000-sf showroom, which will allow customers to view and purchase the products. There will be 147 parking stalls provided. Approximately 27,132 sf will be landscaped, and 7,713 sf will consist of decorative hardscape. The loading docks are along the northern building perimeter.

NOISE SETTING

CITY OF WESTMINSTER NOISE STANDARDS

The Noise Element of the City of Westminster General Plan establishes noise quality standards for land use categories based on the State of California Office of Noise Control land use compatibility recommendations. Community noise exposures are recommended as normally compatible, conditionally compatible, normally incompatible, and clearly incompatible for various classes of land use sensitivity. As shown in Table 1, the City of Westminster guidelines recommend an exterior noise exposure of up to 70 dB CNEL as "normally compatible" for siting commercial uses. Noise levels of up to 80 dBA CNEL are considered "conditionally compatible." In a "conditionally acceptable" noise category, new construction should be undertaken only after a noise analysis has been made and needed noise insulation features have been incorporated in the project design. These standards apply to exterior space.

The Noise Element in the City's municipal code also limits the noise level generated on a property that may cross to a neighboring residential property. The City's noise ordinance limits are stated in terms of a 30-minute limit with allowable deviations from this 50th percentile standard. This noise level describes the noise that is exceeded during a certain percentage of the measurement period. For example, the L_{50} is the level exceeded 50% of the measurement period of thirty minutes in an hour. The larger the deviation, the shorter the allowed duration up to a never-to-exceed 20 dB increase above the 50th percentile standard.

Ordinance limits generally apply to "stationary" sources such as mechanical equipment, or warehousing activity operating on private property. Any stationary equipment at the proposed project must meet the City of Westminster Residential Noise Standards at the nearest residential property line, as shown in Table 2. The applicable requirement is a function of the time of day and appropriate zone. The residences closest to the project site in Zone 1 are required to meet an L_{50} of 55 dB daytime and 55 dB nighttime.

Section 8.28.060E of the City's Noise Ordinance also exempts noise generated by construction from Noise Ordinance standards if construction is restricted to the hours of 7 a.m. and 8 p.m. on weekdays and Saturdays. Construction is not permitted on Sundays or federal holidays.

Table 1

City of Westminster Land Use Compatibility Guidelines for Exterior Community Noise

LAND USES	ENERGY AVERAGE (CNEL) In dB						
	<55	55	60	65	70	75	80+
Amphitheater, concert hall, auditorium, meeting hall	B	B	C	C	D	D	D
Mobile home	A	A	B	C	C	D	D
Hospital, library, school, faith/religious uses	A	A	B	C	C	D	D
Hotel, motel, transient lodging	A	A	B	B	C	C	D
Single family, multifamily, faith/religious uses	A	A	B	B	C	D	D
Parks	A	A	A	B	C	D	D
Office building, research & development, professional office, city office building, and hotel	A	A	A	B	B	C	D
Amusement park, miniature golf, go-cart track, health club, equestrian center	A	A	A	B	B	D	D
Golf courses, nature centers, cemeteries, wildlife reserves, wildlife habitat	A	A	A	A	B	C	C
Commercial retail, bank, restaurant, movie theater	A	A	A	A	B	B	C
Automobile service station, auto dealer, manufacturing, warehousing, wholesale, utilities	A	A	A	A	B	B	B
Agriculture	A	A	A	A	A	A	A

Source: Governor's Office of Planning and Research, Appendix C: Noise Element Guidelines, in *General Plan Guidelines*, October 2003.

Notes: Compatibility zones indicate the degree to which the land uses listed are compatible with the noise levels (CNEL) shown in the table.

Zone A. Clearly Compatible. Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.

Zone B. Normally Compatible. New construction or development should be undertaken only after detailed analysis of the noise reduction requirements are made and needed noise insulation features in the design are determined. Conventional construction, with closed windows and fresh air supply systems or air conditioning, will normally suffice.

Zone C. Normally Incompatible. New construction or development should normally be discouraged. If new construction or development does proceed, a detailed analysis or noise reduction requirements must be made and needed noise insulation features must be included in the design.

Zone D. Clearly Incompatible. New construction or development should generally not be undertaken.

Table 2
City of Westminster Noise Ordinance Standards

EXTERIOR NOISE STANDARDS

Noise Zone	Noise Level	Time Period
1	55 dB(A)	7:00 a.m.-10:00 p.m.
	55 dB(A)	10:00 p.m.- 7:00 a.m.
2	60 dB(A)	7:00 a.m.-10:00 p.m.
	55 dB(A)	10:00 p.m.- 7:00 a.m.

It is unlawful for any person at any location within the incorporated area of the city to create any noise, or to allow the creation of any noise, on property owned, leased, occupied, or otherwise controlled by such person, when the foregoing causes the noise level, when measured on any other residential property, to exceed:

1. The noise standard for a cumulative period of more than thirty minutes in any hour; or

2. The noise standard plus 5dB(A) for a cumulative period of more than fifteen minutes in any hour; or

3. The noise standard plus 10dB(A) for a cumulative period of more than five minutes in any hour; or

4. The noise standard plus 15dB(A) for a cumulative period of more than one minute in any hour; or

5. The noise standard plus 20dB(A) for any period of time.

6. In the event the ambient noise level exceeds any of the first four noise limit categories above, the cumulative period applicable to said category shall be increased to reflect the ambient noise level. In the event the ambient noise level exceeds the fifth noise limit category, the maximum allowable noise level under said category shall be increased to reflect the maximum ambient noise level.

+

BASELINE NOISE LEVELS

Short term on-site noise measurements were made to document baseline levels in the project area. These help to serve as a basis for projecting future noise exposure from the project upon the surrounding community and noise from the community on the project. Noise measurements were conducted on Wednesday, May 3, 2023, at approximately 2 pm., at the location indicated below. A map showing this location is provided in Figure 2.

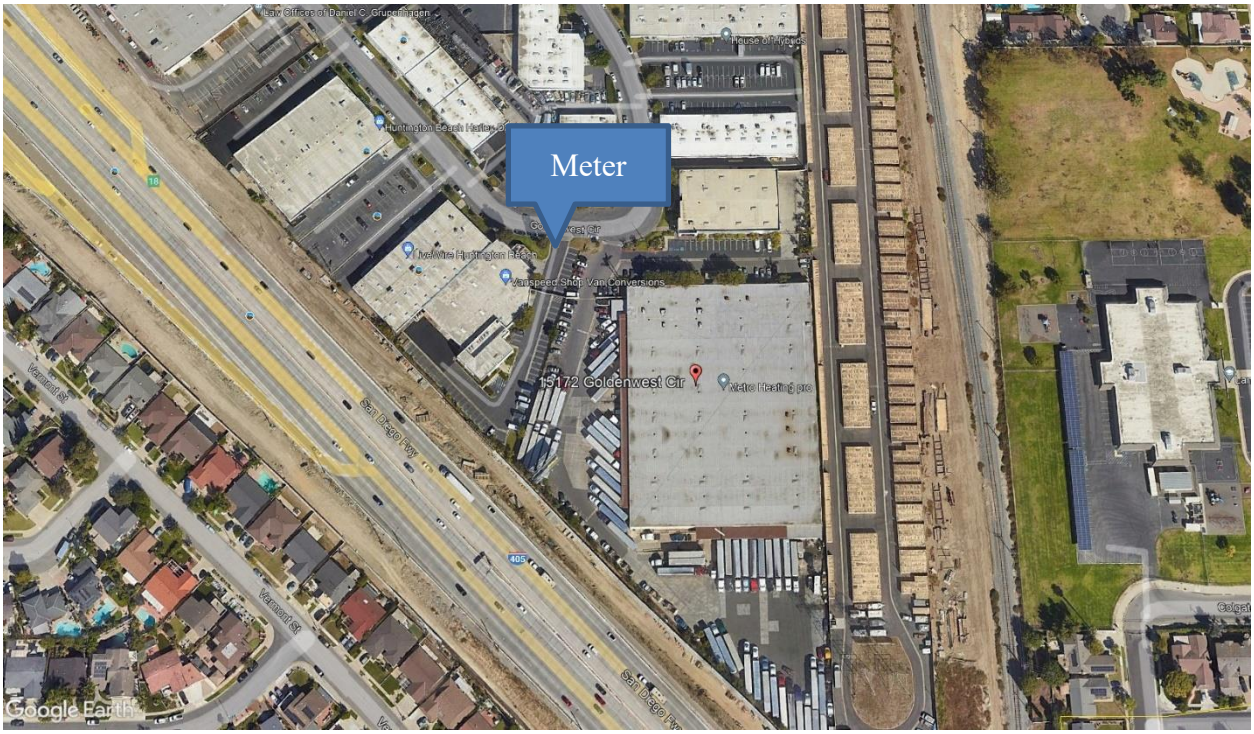
Measured Noise Levels (dBA)

Location	Leq	L_{max}	L_{min}
On-site, adjacent to Goldenwest Circle	64.6	68.1	44.5

CNELs are typically a few decibels higher than mid-afternoon Leq readings. Therefore, although freeway noise is noticeable on site, the resultant CNEL would be less than 70 dBA. As shown in Table 1, the City of Westminster considers exposures of up to 70 dB CNEL as "clearly compatible" for siting commercial uses.

Even if future noise levels should increase by some increment, noise levels of up to 80 dBA CNEL are considered "normally compatible" for commercial setting. In a "normally compatible" noise category, new construction should be undertaken only after a noise analysis has been made and needed noise insulation features have been incorporated in the project design. Conventional construction with closed windows and access to a fresh air supply such as air conditioning will normally suffice.

Figure 1
Noise Meter Location



NOISE IMPACTS

NOISE SIGNIFICANCE CRITERIA

According to the current CEQA Appendix G guidelines, noise impacts are considered potentially significant if they result in:

1. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of a project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
2. Generation of excessive groundborne vibration or groundborne noise levels?
3. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

The terms "substantial" or "excessive" are not defined in most environmental compliance guidelines. Noise analysis methodology is accurate only to the nearest whole decibel and the human ear can only clearly detect changes of around 3 dBA; changes of less than 3 dBA, while audible under controlled circumstances, are not readily discernable in an outdoor environment. Thus, a change of 3 dBA is considered as a perceptible audible change. It would require a doubling of traffic to create a +3 dBA noise increase due to the logarithmic nature of noise calculations. The project is not within the vicinity of an airport.

SOURCES OF IMPACT

Several characteristic noise sources are typically identified with general developments such as the proposed commercial project. Construction activities, especially heavy equipment, will create short-term noise increases near the project site. Upon completion, vehicular traffic on streets around the proposed project area may create a higher noise exposure. In already-developed areas, the added land use intensity associated with a single project only increases traffic incrementally on existing roadways. These noise impacts are often masked by the baseline, and often preclude perception of any substantial noise level increase. The project replaces an existing light industrial project and it is unlikely project impacts will be noticeable at off-site sensitive uses due to distance and intervening structures.

SENSITIVE RECEPTORS

The closest residences are more than 300 feet to the southeast of the closest project perimeter and are accessed from Cascade Lane. With required setbacks, these homes are more than 350 feet from the closest proposed building façade. There is a proposed 50-foot-wide drive aisle along the perimeter closest to these homes along with an outdoor employee break area.

There are also residences on the west side of the freeway which are similarly approximately 300 feet from the project perimeter, but it is assumed that freeway noise would dominate the noise environment at these homes and dilute any project noise.

The loading docks are along the northern perimeter of the proposed building. The existing on-site structures will be demolished as part of construction.

CONSTRUCTION NOISE IMPACTS

Temporary construction noise impacts vary markedly because the noise strength of construction equipment ranges widely as a function of the equipment used and its activity level. Short-term construction noise impacts tend to occur in discrete phases dominated by large, earth-moving equipment sources for demolition and grading. During construction and paving, equipment is generally less noisy.

In 2006, the Federal Highway Administration (FHWA) published the Roadway Construction Noise Model that includes a national database of construction equipment reference noise emissions levels. In addition, the database provides an acoustical usage factor to estimate the fraction of time each piece of construction equipment is operating at full power during a construction phase. The usage factor is a key input variable that is used to calculate the average Leq noise levels.

Table 3 identifies highest (Lmax) noise levels associated with each type of equipment identified for use, then adjusts this noise level for distance to the closest sensitive receptor and the extent of equipment usage (usage factor), which is represented as Leq. The table is organized by construction activity and equipment associated with each activity

Quantitatively, the primary noise prediction equation is expressed as follows for the hourly average noise level (Leq) at distance D between the source and receiver (dBA):

Leq = Lmax @ 50’ – 20 log (D/50’) + 10log (U.F%/100) – I.L.(bar)
Where:
Lmax @ 50’ is the published reference noise level at 50 feet
U.F.% is the usage factor for full power operation per hour
I.L.(bar) is the insertion loss for intervening barriers

For the proposed project, the construction fleet would include equipment such as shown in Table 2 which describes the noise level for each individual piece of equipment at a reference 50-foot distance.

Table 2
Construction Equipment Noise Levels

Phase Name and Duration	Equipment	Usage Factor[1]	Noise @ 50 feet (dB)[2]	Hourly Noise Level @ 50 feet (dB))
Demolition	Concrete Saw	20%	90	83
	Dozer	40%	85	82
	Loader/Backhoe	37%	78	74
Grading	Grader	40%	85	81
	Excavator	40%	85	81
	Dozer	40%	85	82
	Loader/Backhoe	37%	78	74
Construction	Crane	16%	81	73
	Loader/Backhoe	37%	78	74
	Welders	46%	74	71
	Generator Set	50%	81	78
	Forklift	20%	75	69
Paving	Paver	50%	77	74
	Mixer	40%	79	75
	Paving Equipment	40%	76	72
	Loader/Backhoe	37%	78	74
	Roller	20%	80	74

Source: FHWA's Roadway Construction Noise Model, 2006

1. Estimates the fraction of time each piece of equipment is operating at full power during a construction operation
2. The Lmax values presented are the actual measured values summarized in the Roadway Noise Model User Guide (FHWA 2006) unless the actual is unavailable in which case the equipment specifications were used.

Sensitive receptors are farther than the 50-foot reference distance. A block wall at the project perimeter would assist in blocking construction noise at the nearest uses. A -5 dBA noise credit was taken for the 6-foot wall.

At the indicated setback distances, the noise levels shown in Table 3 would likely be observed:

Table 3
Construction Noise Equipment Levels at Off-Site Sensitive Uses (dBA Leq)

Phase Name and Duration	Equipment	Exterior Noise at Closest Home to the East
Demolition	Concrete Saw	67
	Dozer	66
	Loader/Backhoe	58
Grading	Grader	65
	Excavator	65
	Dozer	66
	Loader/Backhoe	58
Construction	Crane	57
	Loader/Backhoe	58
	Welders	55
	Generator Set	62
	Forklift	53
Paving	Paver	58
	Mixer	59
	Paving Equipment	56
	Loader/Backhoe	58
	Roller	58

Older homes with single pane windows can reduce noise levels by 25 dB with the windows closed. However, most modern homes are constructed with dual paned windows, which can afford up to a 30-dB noise reduction with closed windows. This would mean that homes to the southeast would experience a daytime interior noise level of 28-37 dBA with a 5 dBA credit for the noise wall.

The potential for construction-related noise to adversely affect nearby residential receptors would depend on the location and proximity of construction activities to these receptors. Most construction equipment will be located at a much greater setback than the worst-case examples provided in Table 3.

In addition to adhering to the allowable hours of construction (7 a.m. and 8 p.m. on weekdays and Saturdays with no construction permitted on Sundays or federal holidays.) the following measures are recommended to ensure construction noise impacts are reduced to the lowest level possible:

- Locate stationary construction equipment away from the occupied residences; and
- Shut off construction equipment that is not in use; and
- Use electrical power to run air compressors and similar power tools.

These measures are included as conditions on any project construction permits and these limits will serve to minimize any adverse construction noise impact potential. With the generous setback to any sensitive use, it is unlikely that equipment noise will be noticeable. Construction noise impacts are minimized by time restrictions placed on permits which in addition to the recommended measures will minimize potential adverse noise impact.

CONSTRUCTION ACTIVITY VIBRATION

Ground-borne vibration occurs when heavy equipment travels over unpaved surfaces or when it is engaged in soil movement. The effects of ground-borne vibration include discernable movement of building floors, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. Vibration related problems generally occur due to resonances in the structural components of a building because structures amplify groundborne vibration. Within the "soft" sedimentary surfaces of much of Southern California, ground vibration is quickly damped out. Groundborne vibration is almost never annoying to people who are outdoors (FTA 2006).

Groundborne vibrations from construction activities rarely reach levels that can damage structures. Because vibration is typically not an issue, very few jurisdictions have adopted vibration significance thresholds. Vibration thresholds have been adopted for major public works construction projects, but these relate mostly to structural protection (cracking foundations or stucco) rather than to human annoyance.

The vibration descriptor commonly used to determine structural damage is the peak particle velocity (ppv) which is defined as the maximum instantaneous positive or negative peak of the vibration signal, usually measured in in/sec. The range of such vibration is shown in Table 4.

Table 4
Human Response To Transient Vibration

Average Human Response	ppv (in/sec)
Severe	2.00
Strongly perceptible	0.90
Distinctly perceptible	0.24
Barely perceptible	0.03

Source: Caltrans Transportation and Construction Vibration Guidance Manual, 2013.

Over the years, numerous vibration criteria and standards have been suggested by researchers, organizations, and governmental agencies. There are no Caltrans or Federal Highway Administration standards for vibration.

According to Caltrans, the threshold for structural vibration damage for modern structures is 0.5 in/sec for intermittent sources, which include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment. The American Association of State Highway and Transportation Officials (AASHTO) (1990) identifies maximum vibration levels for preventing damage to structures from intermittent construction or maintenance activities for residential buildings in good repair with gypsum board walls to be 0.4–0.5 in/sec. Although existing sensitive uses are at least 300 feet from the site and therefore would not be impacted by construction vibration, adjacent structures are potentially affected. The closest commercial structures are at least 80 feet from the project. Table 5 shows the predicted vibration levels generated by construction equipment at varying distances.

Table 5
Estimated Vibration Levels During Project Construction

Equipment	PPV at 10 ft (in/sec)	PPV at 15 ft (in/sec)	PPV at 25 ft (in/sec)	PPV at 40 ft (in/sec)	PPV at 50 ft (in/sec)
Large Bulldozer	0.352	0.191	0.089	0.044	0.031
Loaded trucks	0.300	0.163	0.076	0.037	0.027
Jackhammer	0.138	0.075	0.035	0.017	0.012
Small Bulldozer	0.012	0.006	0.003	0.001	<0.001

Source: FHWA Transit Noise and Vibration Impact Assessment

The calculation to determine PPV at a given distance is:

PPVdistance = PPVref*(25/D)^1.5

Where:

PPVdistance = the peak particle velocity in inches/second of the equipment adjusted for distance,

PPVref = the reference vibration level in inches/second at 25 feet, and

D = the distance from the equipment to the receiver.

The closest structure to the project is more than 50-feet to the north. As seen in Table 6, the predicted vibration levels generated by construction equipment such as a large bulldozer would be above levels that could create structural damage and likely lower than the barely perceptible threshold. There is virtually no risk of building damage.

VEHICULAR NOISE IMPACTS

The project is expected to generate 61 new daily trips (ins and outs). The addition of only 61 trips over a 24-hour period would not cause a significant noise increase to existing traffic and therefore is considered less-than-significant.

PROJECT NOISE

The main project component that could impact off-site uses are the loading docks which are located along the northern façade of the building. The closest residence with a line-of-sight to the docks is more than 600-feet away (near Bolsa Avenue). It is unlikely that truck noise will be audible at this home.

SUMMARY

Short-term construction noise intrusion and vibration impacts will be limited by conditions on construction permits requiring compliance with the City of Westminster Noise Ordinance. The allowed hours of construction are 7 a.m. to 8 p.m. Monday through Saturday with no construction allowed on Sundays or any legal holiday. The closest sensitive use is 300-feet from the closest site perimeter.

Vibration impacts at the closest structure will be less-than-significant.

Project traffic noise impacts on area roadways will be less-than-significant.

Project noise at off-site receptors is unlikely to be audible because of the large separation distances.

Appendix D –
Preliminary Hydrology Study

County of Orange / Santa Ana Region Priority Project Preliminary Water Quality Management Plan (WQMP)

Project Name:

405 CABINETS & STONE

15172 GOLDENWEST CIRCLE

WESTMINSTER, CA

Prepared for:

Tin Phan
18315 Mt. Baldy Cir.
Fountain Valley, CA 92708

Prepared by:

ITF & Associates, Inc.
11278 Los Alamitos Blvd., #354
Los Alamitos, CA 90720
p. 800-797-9483
email: info@itf-associates.com

Date: January 2022

Revised:

Project Owner's Certification			
Planning Application No. (If applicable)		Grading Permit No.	
Tract/Parcel Map and Lot(s) No.	See attached	Building Permit No.	
Address of Project Site and APN (If no address, specify Tract/Parcel Map and Lot Numbers)			15172 Goldenwest Cir. APN 142-421-13

This Water Quality Management Plan (WQMP) has been prepared for development at

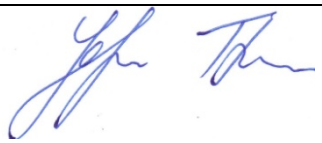
2401 Pullman St., Santa Ana. The WQMP is intended to comply with the requirements of the County of Orange NPDES Stormwater Program requiring the preparation of the plan.

The undersigned, while it owns the subject property, is responsible for the implementation of the provisions of this plan , including the ongoing operation and maintenance of all best management practices (BMPs), and will ensure that this plan is amended as appropriate to reflect up-to-date conditions on the site consistent with the current Orange County Drainage Area Management Plan (DAMP) and the intent of the non-point source NPDES Permit for Waste Discharge Requirements for the County of Orange, Orange County Flood Control District and the incorporated Cities of Orange County within the Santa Ana Region. Once the undersigned transfers its interest in the property, its successors-in-interest shall bear the aforementioned responsibility to implement and amend the WQMP. An appropriate number of approved and signed copies of this document shall be available on the subject site in perpetuity.

Owner:			
Title	General Manager		
Company	405 Cabinets & Stone		
Address	18315 M. Baldy Cir., Fountain Valley, CA		
Email	tin@405cs.com		
Telephone #	714-943-8013		
I understand my responsibility to implement the provisions of this WQMP including the ongoing operation and maintenance of the best management practices (BMPs) described herein.			
Owner Signature		Date	

Preparer (Engineer):			
Title	Yefim "Jeff" Tsalyuk	PE Registration #	RCE 52870
Company	ITF & Associates, Inc.		
Address	11278 Los Alamitos Blvd., #354, Los Alamitos, CA 90720		
Email	info@itf-associates.com		
Telephone #	562-597-4483		

I hereby certify that this Water Quality Management Plan is in compliance with, and meets the requirements set forth in, Order No. R8-2009-0030/NPDES No. CAS618030, of the Santa Ana Regional Water Quality Control Board.

Preparer Signature		Date	01/30/2022
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Attachments

Attachment A ..... Operations and Maintenance Plan
Attachment B ..... WQMP Site Plan
Attachment C ..... Educational Materials
Attachment D ..... Legal Description
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Attachment G ..... Hydrology Study

APPENDIX 1 **CALCULATIONS**

Section I Permit(s) and Water Quality Conditions of Approval or Issuance

Provide discretionary or grading/building permit information and water quality conditions of approval, or permit issuance, applied to the project. If conditions are unknown, please request applicable conditions from staff. *Refer to Section 2.1 in the Technical Guidance Document (TGD) available on the OC Planning website (ocplanning.net).*

Project Infomation			
Permit/Application No. (If applicable)		Grading or Building Permit No. (If applicable)	
Address of Project Site (or Tract Map and Lot Number if no address) and APN	15172 Goldenwest Cir. APN 142-421-13		
Water Quality Conditions of Approval or Issuance			
Water Quality Conditions of Approval or Issuance applied to this project. (Please list verbatim.)	The applicant shall submit to the Public Works Department, Development Services Division for review and approval a Water Quality Management Plan that conforms with current Orange County Guidelines and Requirements as well as the City's WQMP Review Checklist. Said WQMP shall: • Address Site Design Best Management Practices (BMPs) such as minimizing impervious areas, maximizing permeability , minimizing directly connected impervious areas, creating reduced or "zero discharge" areas, and conserving natural areas. • Incorporate applicable Routine Source Control BMPs. • Incorporate Treatment Control BMPs. Describe the long-term operation and maintenance, identifies the responsible parties, and funding mechanisms for the Treatment Control BMPs		

Conceptual WQMP	
Was a Conceptual Water Quality Management Plan previously approved for this project?	none
Watershed-Based Plan Conditions	
Provide applicable conditions from watershed - based plans including WIHMPs and TMDLS.	Anaheim Bay Watershed Sediment, Nutrient, Toxics, Fecal Coliform

Section II Project Description

II.1 Project Description

Provide a detailed project description including:

- Project areas;
- Land uses;
- Land cover;
- Design elements;
- A general description not broken down by drainage management areas (DMAs).

Include attributes relevant to determining applicable source controls. *Refer to Section 2.2 in the Technical Guidance Document (TGD) for information that must be included in the project description.*

Description of Proposed Project				
Development Category (From Model WQMP, Table 7.11-2; or -3):	All significant redevelopment projects, where significant redevelopment is defined as the addition or replacement of 5,000 or more square feet of impervious surface on an already developed site. Redevelopment does not include routine maintenance activities that are conducted to maintain original line and grade,hydraulic capacity, original purpose of the facility, or emergency redevelopment activity required to protect public health and safety. If the redevelopment results in the addition or replacement of less than 50 percent of the impervious area on-site and the existing development was not subject to WQMP requirement, the numeric sizing criteria discussed in Section 7.II-2.0 only applies to the addition or replacement area. If the addition or replacement accounts for 50 percent or more of the impervious area, the Project WQMP requirements apply to the entire development.			
Project Area (ft^2): 232,203 s.f. =5.33 ac.	Number of Dwelling Units: _____		SIC Code: 4225	
Project Area	Pervious		Impervious	
	Area (acres or sq ft)	Percentage	Area (acres or sq ft)	Percentage
Pre-Project Conditions	0 ac.	0%	5.33 ac.	100%
Post-Project Conditions	0.37 ac.	6.8%	4.96 ac.	93.2%

Drainage Patterns/Connections	Prior to Development Existing drainage pattern is in southerly direction along existig cross gutter on west side of the project. The stormwater discharges fron cross gutter into existing channel at southwest corner of the property After Development The stormwater from the new building roof will get to the surface throw the downspout and will sheet flow to the proposed curb and gutter that run along the west and east sides to the south of property. The stormwater from the loading dock will pump to the surface and will sheet flow to the proposed curb & gutter. The curb & gutter will get the stormwater for the proposed proprietary biotreatment MWS. The stormwater will discharge from the proprietary biotreatment and exist the site to the existing drainage channel running along southerly property line.
Narrative Project Description: (Use as much space as necessary.)	The proposed development will include construction of new warehouse, Repaving existing parking lot and new landscape are New impervious area including the building and parking lot equals 4.96 ac. and new landscape area is about 0.37 ac. (6.8% of the site)

II.2 Potential Stormwater Pollutants

Determine and list expected stormwater pollutants based on land uses and site activities. *Refer to Section 2.2.2 and Table 2.1 in the Technical Guidance Document (TGD) for guidance.*

The nearest category in the TGD table is "Commercial/Industrial Development >100,000 s.f.".

Pollutants of Concern			
Pollutant	Check One for each: E=Expected to be of concern N=Not Expected to be of concern		Additional Information and Comments
Suspended-Solid/ Sediment	E ☒	N ☐	Potential sources are disturbed soils and landscape runoff.
Nutrients	E ☒	N ☐	Potential sources are landscape runoff.
Heavy Metals	E ☒	N ☐	Potential sources are automobiles.
Pathogens (Bacteria/Virus)	E ☒	N ☐	Bacterial indicators are routinely detected in pavement runoff.
Pesticides	E ☒	N ☐	Potential sources are landscape runoff.
Oil and Grease	E ☒	N ☐	Potential sources are motor products from leaking vehicles.
Toxic Organic Compounds	E ☒	N ☐	Potential sources are landscape and vehicle runoff
Trash and Debris	E ☒	N ☐	Potential sources are runoff from waste storage areas, and carelessness.

II.3 Hydrologic Conditions of Concern

Determine if streams located downstream from the project area are potentially susceptible to hydromodification impacts. *Refer to Section 2.2.3.1 in the Technical Guidance Document (TGD) for North Orange County or Section 2.2.3.2 for South Orange County.*

☒ No – Show map

☐ Yes – Describe applicable hydrologic conditions of concern below. *Refer to Section 2.2.3 in the Technical Guidance Document (TGD).*

Per Figure XVI-3A "Susceptibility Analysis"- The site is not located in a Potential Areas of Erosion, Habitat, & Physical Structure Susceptibility.

II.4 Post Development Drainage Characteristics

Describe post development drainage characteristics. *Refer to Section 2.2.4 in the Technical Guidance Document (TGD).*

Repaving existing parking lot and new landscape are
New impervious area including the building and parking lot equals
4.96 ac. and new landscape area is about 0.37 ac. (6.8% of the site) compare to no landscape area on an existing site.

II.5 Property Ownership/Management

Describe property ownership/management. *Refer to Section 2.2.5 in the Technical Guidance Document (TGD).*

The property will be controlled and managed by the companies occupying the property.
No infrastructures will be transferred to public agencies.

Section III Site Description

III.1 Physical Setting

Fill out table with relevant information. *Refer to Section 2.3.1 in the Technical Guidance Document (TGD).*

Name of Planned Community/Planning Area (if applicable)	N/A
Location/Address	15172 Goldenwest Cir., Westminster, CA 92683
General Plan Land Use Designation	Industrial
Zoning	M-2
Acreage of Project Site	5.33 ac.
Predominant Soil Type	Soil Type is B

III.2 Site Characteristics

Fill out table with relevant information and include information regarding BMP sizing, suitability, and feasibility, as applicable. *Refer to Section 2.3.2 in the Technical Guidance Document (TGD).*

Site Characteristics	
Precipitation Zone	Per Figure XVI.1 of the TGD, the site is in the 0.75″ Design Capture Storm Depth Rainfall Zone.
Topography	The project site's topography is uniformly flat with general slope toward south side of the property.
Drainage Patterns/Connections	Prior to Development Existing drainage pattern is in southerly direction along existig cross gutter on west side of the project. The stormwater discharges fron cross gutter into existing channel at SW corner of the property After Development The stormwater from the new building roof will get to the surface throw the downspout and will sheet flow to the proposed curb and gutter that run along the west and east sides to the south of property. The stormwater from the loading dock will pump to the surface and will sheet flow to the proposed curb & gutter. The curb & gutter will get the stormwater for the proposed proprietary biotreatment MWS. The stormwater will discharge from the proprietary biotreatment and exist the site to the existing drainage channel running along s'ly property line.
Soil Type, Geology, and Infiltration Properties	Per Figure XVI.2, NRCS Hydrologic Soils Group Exhibit of the TGD, the site is located in an area designated as Hydrologic Soil Group B.
Hydrogeologic (Groundwater) Conditions	Based on the North Orange County Mapped depth to First Groundwater, the project site lies within the area designated to have 5'-10' groundwater level (OC TGD Figure XVI-2d). Per Geotechnical report prepared by Geotechnical solutions site ground water was found at 10 ft. No infiltration is allowed.
Geotechnical Conditions (relevant to infiltration)	Based on the soil gradation analysis results and the fact that historical groundwater depth is approximately 10' feet below grade.
Off-Site Drainage	There are no off-site areas that drain onto the project site.
Utility and Infrastructure Information	There are no known existing subsurface utilities on the project site. The existing utilities are all located within the street ROW's. Services for the proposed project will be brought into the site from the utilities in the street.

III.3 Watershed Description

Fill out table with relevant information and include information regarding BMP sizing, suitability, and feasibility, as applicable. *Refer to Section 2.3.3 in the Technical Guidance Document (TGD).*

Receiving Waters	1nd Receiving Water – Runoff overflow discharge directly from site to the existing storm drain located at the southwest of the property and it will reach to the Westminster channel. The Westminster channel carries water to the west towards Bolsa Chica channel. 2rd Receiving Water – Bolsa Chica Channel. This body of water discharges directly to Huntington Harbor. 3th Receiving Water- Huntington Harbor. This body of water discharges directly to Anaheim Bay. 4th Receiving Water- Pacific Ocean.
303(d) Listed Impairments	Nutrients (Ammonia), Miscellaneous (pH), Metals/Metalloid (Nickel), Other Organics (PCBs), Toxicity (Sediment Toxicity.
Applicable TMDLs	Sediment, Nutrient, Toxics, Fecal Coliform
Pollutants of Concern for the Project	The pollutants of concern for the project, as identified in Table 2.1 of the TGD are Suspended Solid/Sediments, Nutrients, Pathogens (Bacteria/Virus), Pesticides, Oil & Grease, and Trash & Debris
Environmentally Sensitive and Special Biological Significant Areas	The project is not within, adjacent to, nor discharges directly to an ESA.

Section IV Best Management Practices (BMPs)

IV. 1 Project Performance Criteria

Describe project performance criteria. Several steps must be followed in order to determine what performance criteria will apply to a project. These steps include:

- If the project has an approved WIHMP or equivalent, then any watershed specific criteria must be used and the project can evaluate participation in the approved regional or sub-regional opportunities. (Please ask your assigned planner or plan checker regarding whether your project is part of an approved WIHMP or equivalent.)
- Determine applicable hydromodification control performance criteria. *Refer to Section 7.II-2.4.2.2 of the Model WQMP.*
- Determine applicable LID performance criteria. *Refer to Section 7.II-2.4.3 of the Model WQMP.*
- Determine applicable treatment control BMP performance criteria. *Refer to Section 7.II-*3.2.2 *of the Model WQMP.*
- Calculate the LID design storm capture volume for the project. *Refer to Section 7.II-2.4.3 of the Model WQMP.*

(NOC Permit Area only) Is there an approved WIHMP or equivalent for the project area that includes more stringent LID feasibility criteria or if there are opportunities identified for implementing LID on regional or sub-regional basis?	YES ☐	NO ☒
If yes, describe WIHMP feasibility criteria or regional/sub-regional LID opportunities.	N/A	

Project Performance Criteria	
If HCOC exists, list applicable hydromodification control performance criteria (Section 7.II-2.4.2.2 in MWQMP)	HCOC does exist. If a hydrologic condition of concern (HCOC) exists, priority projects shall implement on- site or regional hydromodification controls such that: • Post-development runoff volume for the two-year frequency storm does not exceed that of the predevelopment condition by more than five percent, and • Time of concentration of post-development runoff for the two-year storm event is not less than that for the predevelopment condition by more than five percent.1 Where the Project WQMP documents that excess runoff volume from the two-year runoff event cannot feasibly be retained and where in-stream controls cannot be used to otherwise mitigate HCOCs, the project shall implement on-site or regional hydromodification controls to: • Retain the excess volume from the two-year runoff event to the MEP, and • Implement on-site or regional hydromodification controls such that the post- development runoff two-year peak flow rate is no greater than 110 percent of the predevelopment runoff two-year peak flow rate.
List applicable LID performance criteria (Section 7.II-2.4.3 from MWQMP)	LID BMPs must be designed to retain, on-site, (infiltrate, harvest and use, or evapotranspire) stormwater runoff up to 80 percent average annual capture efficiency. LID BMPs must be designed to: • Retain, on-site, (infiltrate, harvest and use, or evapotranspire) stormwater runoff as feasible up to the Design Capture Volume, and to Recover (i.e., draw down) the storage volume as soon as possible after a storm event (see criteria for maximizing drawdown rate in the TGD Appendix XI), and, if necessary • Biotreat, on-site, additional runoff, as feasible, up to 80 percent average annual capture efficiency (cumulative, retention plus biotreatment), and, if necessary • NOC Permit Area only – retain or biotreat, in a regional facility, the remaining runoff up to 80 percent average annual capture efficiency (cumulative, retention plus biotreatment, on-site plus off-site), and, if necessary Fulfill alternative compliance obligations for runoff volume not retained or bio-treated up to 80 percent average annual capture efficiency using treatment controls or other alternative approaches as described in Section 7.II-3.

List applicable treatment control BMP performance criteria (Section 7.II-3.2.2 from MWQMP)	If it is not feasible to meet LID performance criteria through retention and/or biotreatment provided on-site or at a sub-regional/regional scale, then treatment control BMPs shall be provided on-site or offsite prior to discharge to waters of the US. Sizing of treatment control BMP(s) shall be based on either the unmet volume after claiming applicable water quality credits, if appropriate (See Section 7.II-3.1 Water Quality Credits) and as calculated in TGD Appendix VI. If treatment control BMPs can treat all of the remaining unmet volume and have a medium to high effectiveness for reducing the primary POCs, the project is considered to be in compliance; a waiver application and participation in an alternative program is not required.
Calculate LID design storm capture volume for Project.	Using the Simple Method Runoff Coefficient for Flow-Based BMP Sizing to calculate the runoff volume associated with LID and water quality design storms. The runoff volume shall be calculated as shown in calculation appendix

IV.2. Site Design and Drainage

Describe site design and drainage including

- A narrative of site design practices utilized or rationale for not using practices;
- A narrative of how site is designed to allow BMPs to be incorporated to the MEP
- A table of DMA characteristics and list of LID BMPs proposed in each DMA.
- Reference to the WQMP "BMP Exhibit."
- Calculation of Design Capture Volume (DCV) for each drainage area.
- A listing of GIS coordinates for LID and Treatment Control BMPs.

Refer to Section 2.4.2 in the Technical Guidance Document (TGD).

The site design practices utilized on the project include the following:
Minimize Impervious Area:
Impervious areas are minimized by the use of minimum allowable driveway and parking requirements.
Maximize Natural Infiltration Capacity:
Per soils report the infiltration is feasible.
Disconnect Impervious Areas:
Runoff from most of the impervious areas is directed to the landscape area.
Protect existing vegetation or sensitive areas.
None on site
Re-vegetate Disturbed Areas:
The disturbed areas will be planted with ground cover and a combination of native or drought tolerant plants and trees.

IV.3 LID BMP Selection and Project Conformance Analysis

Each sub-section below documents that the proposed design features conform to the applicable project performance criteria via check boxes, tables, calculations, narratives, and/or references to worksheets. *Refer to Section 2.4.2.3 in the Technical Guidance Document (TGD) for selecting LID BMPs and Section 2.4.3 in the Technical Guidance Document (TGD) for conducting conformance analysis with project performance criteria.*

IV.3.1 Hydrologic Source Controls (HSCs)

If required HSCs are included, fill out applicable check box forms. If the retention criteria are otherwise met with other LID BMPs, include a statement indicating HSCs not required.

Name	Included?
Localized on-lot infiltration	☐
Impervious area dispersion (e.g. roof top disconnection)	☐
Street trees (canopy interception)	☐
Residential rain barrels (not actively managed)	☐
Green roofs/Brown roofs	☐
Blue roofs	☐
Impervious area reduction (e.g. permeable pavers, site design)	☐
Other:	☐
Other:	☐
Other:	☐
Other:	☐
Other:	☐
Other:	☐
Other:	☐
Other:	☐

No HSC's used.

IV.3.2 Infiltration BMPs

Identify infiltration BMPs to be used in project. If design volume cannot be met, state why.

Name	Included?
Bioretention without underdrains	☐
Rain gardens	☐
Porous landscaping	☐
Infiltration planters	☐
Retention swales	☐
Infiltration trenches	☐
Infiltration basins	☐
Drywells	☐
Subsurface infiltration galleries	☐
French drains	☐
Permeable asphalt	☐
Permeable concrete	☐
Permeable concrete pavers	☐
Other:	☐
Other:	☐

Show calculations below to demonstrate if the LID Design Strom Capture Volume can be met with infiltration BMPs. If not, document how much can be met with infiltration and document why it is not feasible to meet the full volume with infiltration BMPs.

The infiltration is not feasible due to high groundwater and is in groundwater protection area

IV.3.3 Evapotranspiration, Rainwater Harvesting BMPs

If the full Design Storm Capture Volume cannot be met with infiltration BMPs, describe any evapotranspiration and/or rainwater harvesting BMPs included.

Name	Included?
All HSCs; *See Section IV.3.1*	☐
Surface-based infiltration BMPs	☐
Biotreatment BMPs	☐
Above-ground cisterns and basins	☐
Underground detention	☐
Other:	☐
Other:	☐
Other:	☐

Show calculations below to demonstrate if the LID Design Storm Capture Volume can be met with evapotranspiration and/or rainwater harvesting BMPs in combination with infiltration BMPs. If not, document below how much can be met with either infiltration BMPs, evapotranspiration, rainwater harvesting BMPs, or a combination, and document why it is not feasible to meet the full volume with these BMP categories.

The proposed project does not have a sufficient landscape area or other allowable uses for rainwater harvesting BMP to be feasible.

IV.3.4 Biotreatment BMPs

If the full Design Storm Capture Volume cannot be met with infiltration BMPs, and/or evapotranspiration and rainwater harvesting BMPs, describe biotreatment BMPs included. Include sections for selection, suitability, sizing, and infeasibility, as applicable.

Name	Included?
Bioretention with underdrains	☐
Stormwater planter boxes with underdrains	☐
Rain gardens with underdrains	☐
Constructed wetlands	☐
Vegetated swales	☐
Vegetated filter strips	☐
Proprietary vegetated biotreatment systems	☒
Wet extended detention basin	☐
Dry extended detention basins	☐
Other:	☐
Other:	☐

Show calculations below to demonstrate if the LID Design Storm Capture Volume can be met with infiltration, evapotranspiration, rainwater harvesting and/or biotreatment BMPs. If not, document how much can be met with either infiltration BMPs, evapotranspiration, rainwater harvesting BMPs, or a combination, and document why it is not feasible to meet the full volume with these BMP categories.

Proprietary biotreatment system is proposed

IV.3.5 Hydromodification Control BMPs

Describe hydromodification control BMPs. *See Section 5 of the Technical Guidance Document (TGD).* Include sections for selection, suitability, sizing, and infeasibility, as applicable. Detail compliance with Prior Conditions of Approval (if applicable).

Hydromodification Control BMPs	
BMP Name	**BMP Description**

Hydromodification Control is required, i.e. post construction Q is greater then pre construction Q.

Qex=4.94 cfs, Qnew-total=6.39 cfs.

The difference of 1.45 cfs will be held in 2 ModularWetland Systems.

IV.3.6 Regional/Sub-Regional LID BMPs

Describe regional/sub-regional LID BMPs in which the project will participate. *Refer to Section 7.II-2.4.3.2 of the Model WQMP*.

Regional/Sub-Regional LID BMPs
None

IV.3.7 Treatment Control BMPs

Treatment control BMPs can only be considered if the project conformance analysis indicates that it is not feasible to retain the full design capture volume with LID BMPs. Describe treatment control BMPs including sections for selection, sizing, and infeasibility, as applicable.

Treatment Control BMPs	
BMP Name	**BMP Description**
N/A	

IV.3.8 Non-structural Source Control BMPs

Fill out non-structural source control check box forms or provide a brief narrative explaining if non-structural source controls were not used.

Non-Structural Source Control BMPs				
Identifier	**Name**	**Check One**		**If not applicable, state brief reason**
		Included	**Not Applicable**	
N1	Education for Property Owners, Tenants and Occupants	☒	☐	
N2	Activity Restrictions	☐	☒	No POA to enforce restrictions.
N3	Common Area Landscape Management	☒	☐	
N4	BMP Maintenance	☒	☐	
N5	Title 22 CCR Compliance (How development will comply)	☐	☒	No hazardous storage
N6	Local Industrial Permit Compliance	☐	☒	
N7	Spill Contingency Plan	☐	☒	No hazardous storage
N8	Underground Storage Tank Compliance	☐	☒	No underground storage tanks
N9	Hazardous Materials Disclosure Compliance	☐	☒	No hazardous storage
N10	Uniform Fire Code Implementation	☒	☐	
N11	Common Area Litter Control	☒	☐	
N12	Employee Training	☒	☐	
N13	Housekeeping of Loading Docks	☐	☒	No loading docks on site
N14	Common Area Catch Basin Inspection	☒	☐	
N15	Street Sweeping Private Streets and Parking Lots	☒	☐	
N16	Retail Gasoline Outlets	☐	☒	Not an RGO

N1 Education for Property Owners, Tenants and Occupants

Practical information materials will be provided to the first occupants/tenants on general housekeeping practices that contribute to the protection of stormwater quality. These materials will be initially developed and provided to first occupants/tenants by the developer. Thereafter such materials will be available through the Permittees‟ education program. Different materials for

residential, office commercial, retail commercial, vehicle-related commercial and industrial uses will be developed.

N3 (SC-73) Common Area Landscape Management

Landscape maintenance shall be consistent with the County Water Conservation Resolution (or city equivalent) that include fertilizer and/or pesticide usage consistent with Management Guidelines for Use of Fertilizers (DAMP Section 5.5). IPM practices are encouraged over the sole use of pesticides as the primary means of pest management . Contractors should evaluate the non-chemical components of IPM before intensive use of pesticides. The goal of IPM is not to eliminate all pests, but to keep their populations at tolerable levels. Pesticides may be part of an IPM program, but they should only be used after the pests exceed established thresholds and only applied in the affected area. In general, pest control strategies should be those that are least disruptive to biological control organisms (natural enemies), least hazardous to humans and the environment (including non-target organisms), and have the best likelihood of long-term effectiveness. Pesticides should not be applied until pests are approaching damaging levels. Because this requires early detection of the pests, monitoring on a regular basis is extremely important and should be used to determine if natural enemies are present and adequately controlling the pest. If possible, a person should be trained and designated to scout the sites on a regular basis.

N4 BMP Maintenance

The Project WQMP shall identify responsibility for implementation of each non-structural BMP and scheduled cleaning and/or maintenance of all structural BMP facilities.

N10 Uniform Fire Code Implementation

Compliance with Article 80 of the Uniform Fire Code enforced by fire protection agency.

N11 (SC-60) Common Area Litter Control

The owner is required to implement trash management and litter control procedures in the public areas aimed at reducing pollution of drainage water. The owner may contract with their landscape maintenance firms to provide this service during regularly scheduled maintenance, which should consist of litter patrol, emptying of trash receptacles in public areas.

N12 Employee Training

Education program (see N1) as it would apply to future employees of individual businesses including training on the proper storage and use of fertilizers and pesticides, and training on the implementation of spill contingency plans.

N14 (SC-74) Common Area Catch Basin Inspection

The owner is required to have at least 80 percent of drainage facilities inspected, cleaned and maintained on an annual basis with 100 percent of the facilities included in a two-year period. Cleaning should take place in the late summer/early fall prior to the start of the rainy season. Drainage facilities include catch basins (storm drain inlets). Records should be kept to document the annual maintenance.

N15 (SC-43, SC-70) Street Sweeping Private Streets and Parking Lots

Streets and parking lots are required to be swept prior to the storm season, in late summer or early fall, prior to the start of the rainy season or equivalent as required by the governing jurisdiction.

IV.3.9 Structural Source Control BMPs

Fill out structural source control check box forms or provide a brief narrative explaining if structural source controls were not used.

Structural Source Control BMPs				
Identifier	Name	Check One		If not applicable, state brief reason
		Included	Not Applicable	
S1	Provide storm drain system stenciling and signage	☐	☒	No storm drain system
S2	Design and construct outdoor material storage areas to reduce pollution introduction	☐	☒	No outdoor material storage areas.
S3	Design and construct trash and waste storage areas to reduce pollution introduction	☒	☐	
S4	Use efficient irrigation systems & landscape design, water conservation, smart controllers, and source control	☒	☐	
S5	Protect slopes and channels and provide energy dissipation	☐	☒	No channels or slopes.
	Incorporate requirements applicable to individual priority project categories (from SDRWQCB NPDES Permit)	☒	☐	
S6	Dock areas	☐	☒	None on site
S7	Maintenance bays	☐	☒	None on site
S8	Vehicle wash areas	☐	☒	None on site
S9	Outdoor processing areas	☐	☒	None on site
S10	Equipment wash areas	☐	☒	None on site
S11	Fueling areas	☐	☒	None on site
S12	Hillside landscaping	☐	☒	None on site
S13	Wash water control for food preparation areas	☐	☒	None on site
S14	Community car wash racks	☐	☒	None on site

S1 (SD-13) Provide Storm Drain System Stenciling and Signage

Storm drain stencils are highly visible source control messages, typically placed directly adjacent to storm drain inlets. The stencils contain a brief statement that prohibits the dumping of improper materials into the municipal storm drain system. Graphical icons, either illustrating

anti-dumping symbols or images of receiving water fauna, are effective supplements to the antidumping message. Stencils and signs alert the public to the destination of pollutants discharged into stormwater. The following requirements should be included in the project design and shown on the project plans:

1. Provide stenciling or labeling of all storm drain inlets and catch basins, constructed or modified, within the project area with prohibitive language (such as: "NO DUMPINGDRAINS TO OCEAN") and/or graphical icons to discourage illegal dumping.
2. Post signs and prohibitive language and/or graphical icons, which prohibit illegal dumping at public access points along channels and creeks within the project area.
3. Maintain legibility of stencils and signs.

See CASQA Stormwater Handbook BMP Fact Sheet SD-13 for additional information.

S3 (SD-32) Design Trash Enclosures to Reduce Pollutant Introduction

Design trash storage areas to reduce pollutant introduction. All trash container areas shall meet the following requirements:

1. Paved with an impervious surface, designed not to allow run-on from adjoining areas, designed to divert drainage from adjoining roofs and pavements diverted around the area, screened or walled to prevent off-site transport of trash; and

2. Provide solid roof or awning to prevent direct precipitation.

Connection of trash area drains to the municipal storm drain system is prohibited.

Potential conflicts with fire code and garbage hauling activities should be considered in implementing this source control.

See CASQA Stormwater Handbook Section 3.2.9 and BMP Fact Sheet SD-32 for additional information.

S4 (SD-12) Use Efficient Irrigation Systems and Landscape Design

Projects shall design the timing and application methods of irrigation water to minimize the runoff of excess irrigation water into the municipal storm drain system. The following methods to reduce excessive irrigation runoff shall be considered, and incorporated on common areas of development and other areas where determined applicable and feasible by the Permittee:

1. Employing rain shutoff devices to prevent irrigation after precipitation.

2. Designing irrigation systems to each landscape area□s specific water requirements.

3. Using flow reducers or shutoff valves triggered by a pressure drop to control water loss in the event of broken sprinkler heads or lines.

4. Implementing landscape plan consistent with County Water Conservation Resolution or city equivalent, which may include provision of water sensors, programmable irrigation times (for short cycles), etc.

5. The timing and application methods of irrigation water shall be designed to minimize the runoff of excess irrigation water into the municipal storm drain system.

6. Employing other comparable, equally effective, methods to reduce irrigation water runoff.

Irrigation practices shall comply with local and statewide ordinances related to irrigation efficiency.

IV.4 Alternative Compliance Plan (If Applicable)

Describe an alternative compliance plan (if applicable). Include alternative compliance obligations (i.e., gallons, pounds) and describe proposed alternative compliance measures. *Refer to Section 7.II 3.0 in the WQMP.*

IV.4.1 Water Quality Credits

Determine if water quality credits are applicable for the project. *Refer to Section 3.1 of the Model WQMP for description of credits and Appendix VI of the Technical Guidance Document (TGD) for calculation methods for applying water quality credits.*

Description of Proposed Project				
Project Types that Qualify for Water Quality Credits (Select all that apply):				
☐Redevelopment projects that reduce the overall impervious footprint of the project site.	☐Brownfield redevelopment, meaning redevelopment, expansion, or reuse of real property which may be complicated by the presence or potential presence of hazardous substances, pollutants or contaminants, and which have the potential to contribute to adverse ground or surface WQ if not redeveloped.	☐ Higher density development projects which include two distinct categories (credits can only be taken for one category): those with more than seven units per acre of development (lower credit allowance); vertical density developments, for example, those with a Floor to Area Ratio (FAR) of 2 or those having more than 18 units per acre (greater credit allowance).		
☐ Mixed use development, such as a combination of residential, commercial, industrial, office, institutional, or other land uses which incorporate design principles that can demonstrate environmental benefits that would not be realized through single use projects (e.g. reduced vehicle trip traffic with the potential to reduce sources of water or air pollution).		☐ Transit-oriented developments, such as a mixed use residential or commercial area designed to maximize access to public transportation; similar to above criterion, but where the development center is within one half mile of a mass transit center (e.g. bus, rail, light rail or commuter train station). Such projects would not be able to take credit for both categories, but may have greater credit assigned		☐ Redevelopment projects in an established historic district, historic preservation area, or similar significant city area including core City Center areas (to be defined through mapping).
☐Developments with dedication of undeveloped portions to parks, preservation areas and other pervious uses.	☐ Developments in a city center area.	☐ Developments in historic districts or historic preservation areas.	☐ Live-work developments, a variety of developments designed to support residential and vocational needs together – similar to criteria to mixed use development; would not be able to take credit for both categories.	☒In-fill projects, the conversion of empty lots and other underused spaces into more beneficially used spaces, such as residential or commercial areas.
Calculation of Water Quality Credits (if applicable)	Per Section 7.II-3.1.1 of the Model WQMP the water quality credit for In-fill development is 10 percent of the DCV. **No water quality credits are being used for this project.**			

IV.4.2 Alternative Compliance Plan Information

Describe an alternative compliance plan (if applicable). Include alternative compliance obligations (i.e., gallons, pounds) and describe proposed alternative compliance measures. *Refer to Section 7.II 3.0 in the Model WQMP.*

Not Applicable.

Section V Inspection/Maintenance Responsibility for BMPs

Fill out information in table below. Prepare and attach an Operation and Maintenance Plan. Identify the funding mechanism through which BMPs will be maintained. Inspection and maintenance records must be kept for a minimum of five years for inspection by the regulatory agencies. *Refer to Section 7.II 4.0 in the Model WQMP.*

BMP Inspection/Maintenance			
BMP	**Reponsible Party(s)**	**Inspection/ Maintenance Activities Required**	**Minimum Frequency of Activities**
N1 Education for Property Owners, Tenants and Occupants	owner	Practical information materials will be provided to the first occupants/tenants on general housekeeping practices that contribute to the protection of stormwater quality. These materials will be initially developed and provided to first occupants/tenants by the developer. Thereafter such materials will be available through the Permittees" education program. Different materials for residential, office commercial, retail commercial, vehicle-related commercial and industrial uses will be developed.	annually
N3 (SC-73) Common Area Landscape Management	owner	Landscape maintenance shall be consistent with the County Water Conservation Resolution (or city equivalent) that include fertilizer and/or pesticide usage consistent with Management Guidelines for Use of Fertilizers (DAMP Section 5.5). IPM practices are encouraged over the sole use of pesticides as the primary means of pest management . Contractors should evaluate the non-chemical components of IPM before intensive use of pesticides. The goal of IPM is not to eliminate all pests, but to keep their	annually

		populations at tolerable levels. Pesticides may be part of an IPM program, but they should only be used after the pests exceed established thresholds and only applied in the affected area. In general, pest control strategies should be those that are least disruptive to biological control organisms (natural enemies), least hazardous to humans and the environment (including non-target organisms), and have the best likelihood of long-term effectiveness. Pesticides should not be applied until pests are approaching damaging levels. Because this requires early detection of the pests, monitoring on a regular basis is extremely important and should be used to determine if natural enemies are present and adequately controlling the pest. If possible, a person should be trained and designated to scout the sites on a regular basis.	
N4 BMP Maintenance	owner	The Project WQMP shall identify responsibility for implementation of each non-structural BMP and scheduled cleaning and/or maintenance of all structural BMP facilities.	annually
N10 Uniform Fire Code Implementation	owner	Compliance with Article 80 of the Uniform Fire Code enforced by fire protection agency.	annually
N11 (SC-60) Common Area Litter Control	owner	The owner is required to implement trash management and litter control procedures in the public areas aimed at reducing pollution of drainage water. The owner may contract with their landscape maintenance firms to provide this service during regularly scheduled maintenance, which should consist of litter patrol, emptying of trash receptacles in public areas.	annually

N12 Employee Training	owner	Education program (see N1) as it would apply to future employees of individual businesses including training on the proper storage and use of fertilizers and pesticides, and training on the implementation of spill contingency plans	annually
N14 (SC-74) Common Area Catch Basin Inspection	owner	The owner is required to have at least 80 percent of drainage facilities inspected, cleaned and maintained on an annual basis with 100 percent of the facilities included in a two-year period. Cleaning should take place in the late summer/early fall prior to the start of the rainy season. Drainage facilities include catch basins (storm drain inlets). Records should be kept to document the annual maintenance.	annually
N15 (SC-43, SC-70) Street Sweeping Private Streets and Parking Lots	owner	Streets and parking lots are required to be swept prior to the storm season, in late summer or early fall, prior to the start of the rainy season or equivalent as required by the governing jurisdiction.	annually
S3 (SD-32) Design Trash Enclosures to Reduce Pollutant Introduction	owner	Design trash storage areas to reduce pollutant introduction. All trash container areas shall meet the following requirements: 1. Paved with an impervious surface, designed not to allow run-on from adjoining areas, designed to divert drainage from adjoining roofs and pavements diverted around the area, screened or walled to prevent off-site transport of trash; and 2. Provide solid roof or awning to prevent direct precipitation. Connection of trash area drains to the municipal storm drain system is prohibited. Potential conflicts with fire code and garbage hauling activities should be considered in implementing this source control. See CASQA Stormwater Handbook Section 3.2.9 and BMP Fact Sheet SD-32 for additional information.	

S4 (SD-12) Use Efficient Irrigation Systems and Landscape Design	owner	Projects shall design the timing and application methods of irrigation water to minimize the runoff of excess irrigation water into the municipal storm drain system. The following methods to reduce excessive irrigation runoff shall be considered, and incorporated on common areas of development and other areas where determined applicable and feasible by the Permittee: 1. Employing rain shutoff devices to prevent irrigation after precipitation. 2. Designing irrigation systems to each lndsc. area□s specific water requirements. 3. Using flow reducers or shutoff valves triggered by a pressure drop to control water loss in the event of broken sprinkler heads or lines. 4. Implementing landscape plan consistent with County Water Conservation Resolution or city equivalent, which may include provision of water sensors, programmable irrigation times (for short cycles), etc. 5. The timing and application methods of irrigation water shall be designed to minimize the runoff of excess irrigation water into the municipal storm drain system. 6. Employing other comparable, equally effective, methods to reduce irrigation water runoff. Irrigation practices shall comply with local and statewide ordinances related to irrigation efficiency.	

Section VI BMP Exhibit (Site Plan)

VI.1 BMP Exhibit (Site Plan)

Include a BMP Exhibit (Site Plan), at a size no less than 24" by 36," which includes the following minimum information:

- Insert in the title block (lower right hand corner) of BMP Exhibit: the WQMP Number (assigned by staff) and the grading/building or Planning Application permit numbers
- Project location (address, tract/lot number(s), etc.)
- Site boundary
- Land uses and land covers, as applicable
- Suitability/feasibility constraints
- Structural BMP locations
- Drainage delineations and flow information
- Delineate the area being treated by each structural BMP
- GIS coordinates for LID and Treatment Control BMPs
- Drainage connections
- BMP details
- Preparer name and stamp

Please do not include any areas outside of the project area or any information not related to drainage or water quality. The approved BMP Exhibit (Site Plan) shall be submitted as a plan sheet on all grading and building plan sets submitted for plan check review and approval. The BMP Exhibit shall be at the same size as the rest of the plan sheets in the submittal and shall have an approval stamp and signature prior to plan check submittal.

VI.2 Submittal and Recordation of Water Quality Management Plan

Following approval of the Final Project-Specific WQMP, three copies of the approved WQMP (including BMP Exhibit, Operations and Maintenance (O&M) Plan, and Appendices) shall be submitted. In addition, these documents shall be submitted in a PDF format.

Each approved WQMP (including BMP Exhibit, Operations and Maintenance (O&M) Plan, and Appendices) shall be recorded in the Orange County Clerk-Recorder's Office, prior to close-out of grading and/or building permit. Educational Materials are not required to be included.

Section VII Educational Materials

Refer to the Orange County Stormwater Program (ocwatersheds.com) for a library of materials available. Please only attach the educational materials specifically applicable to this project. Other materials specific to the project may be included as well and must be attached.

Education Materials			
Residential Material (http://www.ocwatersheds.com)	**Check If Applicable**	**Business Material (http://www.ocwatersheds.com)**	**Check If Applicable**
The Ocean Begins at Your Front Door	☐	Tips for the Automotive Industry	☒
Tips for Car Wash Fund-raisers	☐	Tips for Using Concrete and Mortar	☐
Tips for the Home Mechanic	☐	Tips for the Food Service Industry	☐
Homeowners Guide for Sustainable Water Use	☐	Proper Maintenance Practices for Your Business	☒
Household Tips	☐	**Other Material**	**Check If Attached**
Proper Disposal of Household Hazardous Waste	☐		
Recycle at Your Local Used Oil Collection Center (North County)	☐	SD-12 Efficient Irrigation	☒
Recycle at Your Local Used Oil Collection Center (Central County)	☐		☐
Recycle at Your Local Used Oil Collection Center (South County)	☐		☐
Tips for Maintaining a Septic Tank System	☐		☐
Responsible Pest Control	☐		☐
Sewer Spill	☐		☐
Tips for the Home Improvement Projects	☐		☐
Tips for Horse Care	☐		☐
Tips for Landscaping and Gardening	☐		☐
Tips for Pet Care	☐		☐
Tips for Pool Maintenance	☐		☐
Tips for Residential Pool, Landscape and Hardscape Drains	☐		☐
Tips for Projects Using Paint	☐		☐

Preventing water pollution at your commercial/industrial site

Clean beaches and healthy creeks, rivers, bays and ocean are important to Orange County. However, many landscape and building maintenance activities can lead to water pollution if you're not careful. Paint, chemicals, plant clippings and other materials can be blown or washed into storm drains that flow to the ocean. Unlike water in sanitary sewers (from sinks and toilets), water in storm drains is not treated before entering our waterways.

You would never pour soap or fertilizers into the ocean, so why would you let them enter the storm drains? Follow these easy tips to help prevent water pollution.

Some types of industrial facilities are required to obtain coverage under the State General Industrial Permit. For more information visit: **www.swrcb.ca.gov/stormwater/industrial.html**

For more information, please call the **Orange County Stormwater Program** at **1-877-89-SPILL** (1-877-897-7455) or visit **www.ocwatersheds.com**

To report a spill, call the **Orange County 24-Hour Water Pollution Problem Reporting Hotline** at **1-877-89-SPILL** (1-877-897-7455).

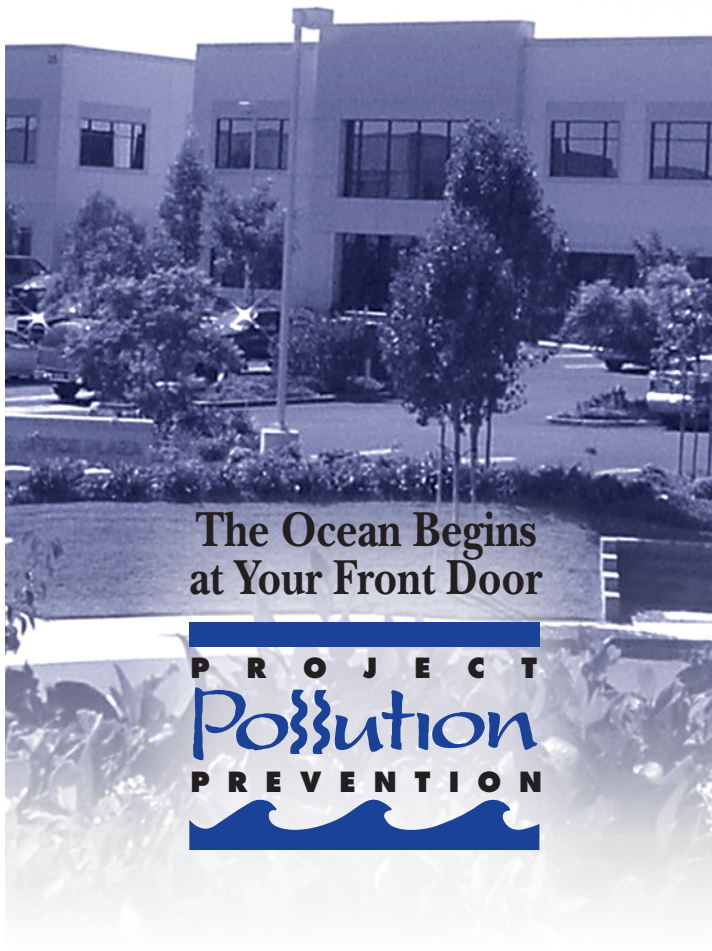
For emergencies, dial 911.

RECYCLE USED OIL

Printed on Recycled Paper

Help Prevent Ocean Pollution:

Proper Maintenance Practices for Your Business



The Ocean Begins at Your Front Door

PROJECT Pollution PREVENTION

Proper Maintenance Practices for your Business

Landscape Maintenance

- Compost grass clippings, leaves, sticks and other vegetation, or dispose of it at a permitted landfill or in green waste containers. Do not dispose of these materials in the street, gutter or storm drain.
- Irrigate slowly and inspect the system for leaks, overspraying and runoff. Adjust automatic timers to avoid overwatering.
- Follow label directions for the use and disposal of fertilizers and pesticides.
- Do not apply pesticides or fertilizers if rain is expected within 48 hours or if wind speeds are above 5 mph.
- Do not spray pesticides within 100 feet of waterways.
- Fertilizers should be worked into the soil rather than dumped onto the surface.
- If fertilizer is spilled on the pavement or sidewalk, sweep it up immediately and place it back in the container.

Building Maintenance

- Never allow washwater, sweepings or sediment to enter the storm drain.
- Sweep up dry spills and use cat litter, towels or similar materials to absorb wet spills. Dispose of it in the trash.
- If you wash your building, sidewalk or parking lot, you **must** contain the water. Use a shop vac to collect the water and contact your city or sanitation agency for proper disposal information. Do not let water enter the street, gutter or storm drain.
- Use drop cloths underneath outdoor painting, scraping, and sandblasting work, and properly dispose of materials in the trash.
- Use a ground cloth or oversized tub for mixing paint and cleaning tools.
- Use a damp mop or broom to clean floors.
- Cover dumpsters to keep insects, animals, rainwater and sand from entering. Keep the area around the dumpster clear of trash and debris. Do not overfill the dumpster.
- Call your trash hauler to replace leaking dumpsters.
- Do not dump any toxic substance or liquid waste on the pavement, the ground, or near a storm drain. Even materials that seem harmless such as latex paint or biodegradable cleaners can damage the environment.

Never Dispose of Anything in the Storm Drain.

- Recycle paints, solvents and other materials. For more information about recycling and collection centers, visit **www.oclandfills.com**.
- Store materials indoors or under cover and away from storm drains.
- Use a construction and demolition recycling company to recycle lumber, paper, cardboard, metals, masonry, carpet, plastic, pipes, drywall, rocks, dirt, and green waste. For a listing of construction and demolition recycling locations in your area, visit **www.ciwmb.ca.gov/recycle.**
- Properly label materials. Familiarize employees with Material Safety Data Sheets.

PROJECT Pollution PREVENTION

HOMEOWNER TIPS
PROTECTING WATER

Before Buying Pest Control Products

- Identify the pest.
- Decide if pest control products are the best control measure or if there are alternatives available.
- Are integrated pest management guidelines available for this pest?
- Read the product label:
  - Is the pest listed on the label?
  - Is it the best product for the pest?

Before Mixing Your Sprayer

- Read the label carefully.
- Buy only enough pesticide to treat the area affected by the pest.
- Check the weather and don't apply if it's windy or about to rain
- Measure the area you're treating.
- Calculate how much spray to mix.
- Wear long sleeve shirt, long pants, shoes and any other protective equipment listed on the label and follow all the label precautions.
- Be prepared for spills and know how to clean them up.

When You're Ready To Spray

- Mix and load spray in an area where any spilled pesticide will not be able to drain or be washed away into storm drains, ditches, streams, ponds or other bodies of water.
- Mix sprayer on grass, not the sidewalk or driveway.
- Mix only as much as needed.

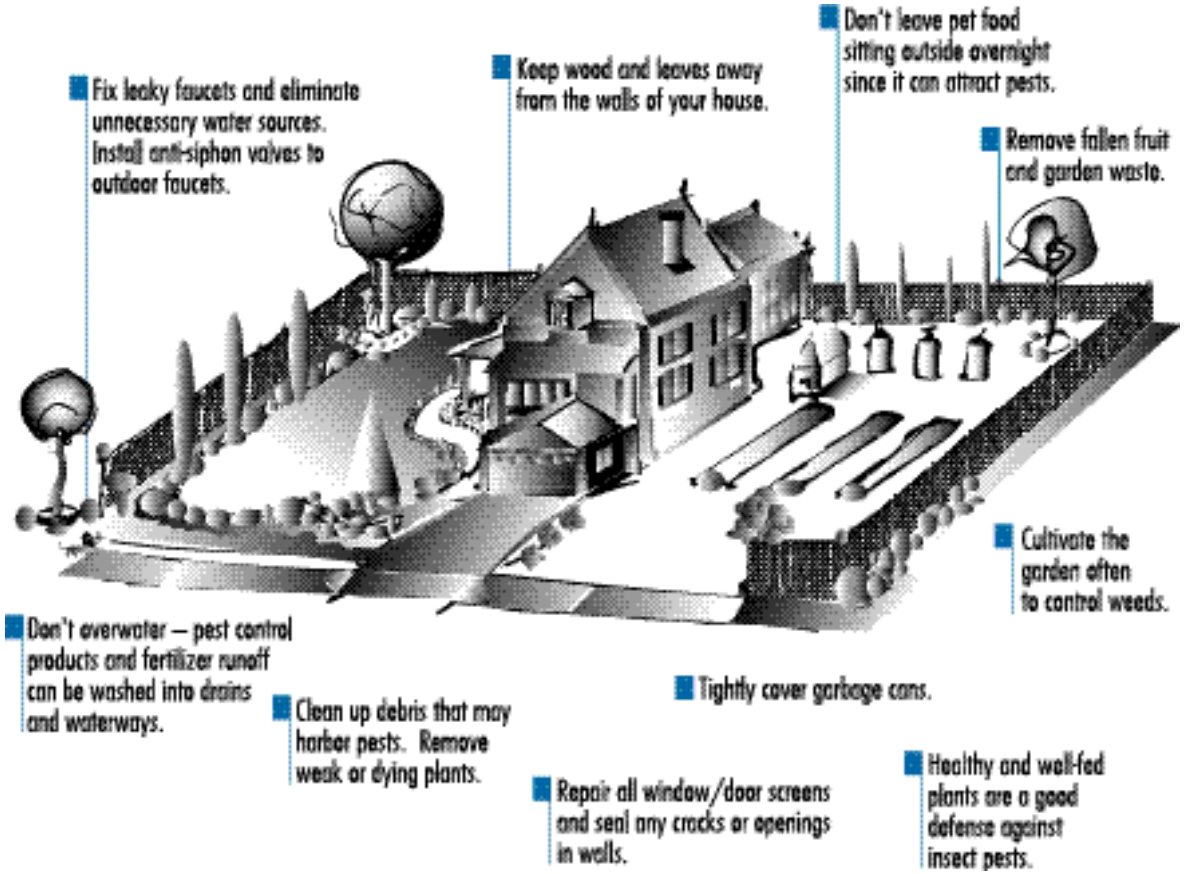
When You're Spraying

- AVOID spraying in or near storm drains, ditches, streams, and ponds!
- Leave an untreated strip around these areas to protect the water.

When You're done

- Never dump leftovers down any drain; Save for a future application.
- Triple-rinse sprayer and apply rinsewater to treated area.
- Take any old or unwanted pesticides to a Household Hazardous Waste Collection Center (714) 834-6752.

Using Pest Control Products. It's Your Responsibility To Do It Right!



IPM... Outsmarting Pests While Protecting Water

With Integrated Pest Management (IPM), homeowners use common sense and nature to make it difficult for pests to survive. IPM techniques include cultural practices (such as mulching to prevent weeds), encouraging natural enemies (good bugs), and judicious use of pest control products.

- First, identify your pest problem. To find the best solution, you need to pin down the problem. Consult gardening books, your county cooperative extension office or your local nursery.
- Decide how much pest control is necessary. If you can live with some pest damage, you can avoid intensive pest control product treatments.
- Choose an effective option. Try various types of controls first: washing bugs off plants, pruning diseased parts of plants. If you need to use pest control products, choose one that targets the problem and poses the least hazard.
- Finally, it's easier to prevent pests than to control them.

Think ahead.

This brochure is being distributed in order to reduce the impacts of pesticides on water quality. It was produced with support from the Orange County Storm Water Program, the Coalition for Urban/Rural Environmental Stewardship (CURES) and a 319(h) grant from the State Water Resources Control Board.

Orange County Storm Water Program Participants:

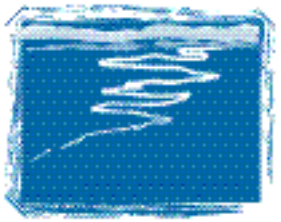
Anaheim Public Works/Engineering	(714) 765-5176
Brea Engineering	(714) 990-7666
Buena Park Public Works	(714) 562-3655
Costa Mesa Public Services	(714) 754-5248
Cypress Engineering	(714) 229-6752
Dana Point Public Works	(949) 248-3562
Fountain Valley Public Works	(714) 593-4400 x347
Fullerton Engineering Dept	(714) 738-6853
Garden Grove Development Services	(714) 741-5554
Huntington Beach Public Works	(714) 536-5432
Irvine Public Works	(949)724-6515
La Habra Public Services	(562) 905-9792
La Palma Public Works	(714) 523-1140 x102
Laguna Beach Municipal Services	(949) 497-0711
Laguna Hills Engineering	(949) 707-2600
Laguna Niguel Public Works	(949) 362-4337
Lake Forest Public Works	(949) 461-3480
Los Alamitos Community Dev	(562) 431-3538 x301
Mission Viejo Public Works	(949) 470-3095
Newport Beach Public works	(949) 644-3311
Orange Public Works	(714) 744-5551
Placentia Engineering	(714) 993-8131
San Clemente Engineering	(949) 361-6100
San Juan Capistrano Engineering	(949) 493-1171
Santa Ana Public Works	(714) 647-3380
Seal Beach Engineering	(562) 431-2527 x318
Stanton Public Works	(714) 379-9222 x204
Tustin Public Works Engineering	(714) 573-3150
Villa Park Engineering	(714) 998-1500
Westminster Public Works Eng.	(714) 898-3311 x215
Yorba Linda Engineering	(714) 961-7170 x174
O.C. Storm Water Program	1-877-89-SPILL (1-877-897-7455)
24 Hour Water Pollution Hotline	(714) 567-6363 or ashbyk@pfrd.co.orange.ca.us
Chemical and Hazardous Material Spill Emergencies	911

Other Important Phone Numbers:

For Additional Brochures	1-877-89-SPILL (1-877-897-7455)
UC Masters & Coop Extension	(714) 708-1646 ucmastergardeners@yahoo.com
O.C. Household Hazardous Waste Information	(714) 834-6752 or www.oc.ca.gov/IWMD
Information on agriculture chemicals, pesticides and possible alternatives, O.C. Agriculture Commissioner	(714) 447-7115

Original graphics developed with support from:
Coalition For Urban/Rural Environmental Stewardship (CURES)
Western Crop Protection Association (WCPA)
Responsible Industry for a Sound Environment (RISE)

Keeping Pest Control Products Out of Creeks, Rivers and The Ocean



HOMEOWNER TIPS

PROTECTING WATER

Clean beaches and healthy creeks, rivers, bays and ocean are important to Orange County. However, many common activities such as pest control can lead to water pollution if you're not careful. Pesticide treatments must be planned and applied properly to ensure that pesticides do not enter the street, gutter or storm drain. Unlike water in sanitary sewers (from sinks and toilets), water in storm drains is not treated before entering our waterways.

You would never dump pesticides into the ocean, so don't let it enter the storm drains. Pesticides can cause significant damage to our environment if used improperly. If you are thinking of using a pesticide to control a pest, there are some important things to consider.

For more information,
please call
University of California Cooperative
Extension Master Gardeners at
(714) 708-1646
or visit these Web sites:
www.uccemg.org
www.ipm.ucdavis.edu

For instructions on collecting a specimen sample visit the Orange County Agriculture Commissioner's website at:
http://www.ocagcomm.com/ser_lab.asp

To report a spill, call the
Orange County 24-Hour
Water Pollution Problem
Reporting Hotline
at 1-877-89-SPILL (1-877-897-7455).

For emergencies, dial 911.

Information From:
Cheryl Wilen, Area IPM Advisor; Darren Haver, Watershed Management Advisor; Mary Louise Flint, IPM Education and Publication Director; Pamela M. Geisel, Environmental Horticulture Advisor; Carolyn L. Unruh, University of California Cooperative Extension staff writer. Photos courtesy of the UC Statewide IPM Program and Darren Haver.

Funding for this brochure has been provided in full or in part through an agreement with the State Water Resources Control Board (SWRCB) pursuant to the Costa-Machado Water Act of 2000 (Prop. 13).

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Help Prevent Ocean Pollution:

Responsible Pest Control

Tips for Pest Control

Key Steps to Follow:

Step 1: Correctly identify the pest (insect, weed, rodent, or disease) and verify that it is actually causing the problem.

Three life stages of the common lady beetle, a beneficial insect.

This is important because beneficial insects are often mistaken for pests and sprayed with pesticides needlessly.

Consult with a Certified Nursery Professional at a local nursery or garden center or send a sample of the pest to the Orange County Agricultural Commissioner's Office.

Determine if the pest is still present – even though you see damage, the pest may have left.

Step 2: Determine how many pests are present and causing damage.

Small pest populations may be controlled more safely using non-pesticide techniques. These include removing food sources, washing off leaves with a strong stream of water, blocking entry into the home using caulking and replacing problem plants with ones less susceptible to pests.

Integrated Pest Management (IPM) usually combines several least toxic pest control methods for long-term prevention and management of pest problems without harming you, your family, or the environment.

UC CE University of California Cooperative Extension

Step 3: If a pesticide must be used, choose the least toxic chemical.

Obtain information on the least toxic pesticides that are effective at controlling the target pest from the UC Statewide Integrated Pest Management (IPM) Program's Web site at www.ipm.ucdavis.edu.

Seek out the assistance of a Certified Nursery Professional at a local nursery or garden center when selecting a pesticide. Purchase the smallest amount of pesticide available.

Apply the pesticide to the pest during its most vulnerable life stage. This information can be found on the pesticide label.

Step 4: Wear appropriate protective clothing.

Follow pesticide labels regarding specific types of protective equipment you should wear. Protective clothing should always be washed separately from other clothing.

Step 5: Continuously monitor external conditions when applying pesticides such as weather, irrigation, and the presence of children and animals.

Never apply pesticides when rain is predicted within the next 48 hours. Also, do not water after applying pesticides unless the directions say it is necessary.

Apply pesticides when the air is still; breezy conditions may cause the spray or dust to drift away from your targeted area.

In case of an emergency call 911 and/or the regional poison control number at (714) 634-5988 or (800) 544-4404 (CA only).

For general questions you may also visit www.calpoison.org.

Step 6: In the event of accidental spills, sweep up or use an absorbent agent to remove any excess pesticides. Avoid the use of water.

Be prepared. Have a broom, dust pan, or dry absorbent material, such as cat litter, newspapers or paper towels, ready to assist in cleaning up spills.

Contain and clean up the spill right away. Place contaminated materials in a doubled plastic bag. All materials used to clean up the spill should be properly disposed of according to your local Household Hazardous Waste Disposal site.

Step 7: Properly store and dispose of unused pesticides.

Purchase Ready-To-Use (RTU) products to avoid storing large concentrated quantities of pesticides.

Store unused chemicals in a locked cabinet.

Unused pesticide chemicals may be disposed of at a Household Hazardous Waste Collection Center.

Empty pesticide containers should be triple rinsed prior to disposing of them in the trash.

Household Hazardous Waste Collection Center
(714) 834-6752
www.oclandfills.com

PROJECT Pollution PREVENTION

Sewage Spill Regulatory Requirements

Allowing sewage to discharge to a gutter or storm drain may subject you to penalties and/or out-of-pocket costs to reimburse cities or public agencies for clean-up efforts.

Here are the pertinent codes, fines, and agency contact information that apply.

Orange County Stormwater Program
24 Hour Water Pollution Reporting Hotline
1-877-89-SPILL (1-877-897-7455)

- County and city water quality ordinances prohibit discharges containing pollutants.

Orange County Health Care Agency Environmental Health
(714) 433-6419

California Health and Safety Code, Sections 5410-5416

- No person shall discharge raw or treated sewage or other waste in a manner that results in contamination, pollution or a nuisance.
- Any person who causes or permits a sewage discharge to any state waters:
  - must immediately notify the local health agency of the discharge.
  - shall reimburse the local health agency for services that protect the public's health and safety (water-contact receiving waters).
  - who fails to provide the required notice to the local health agency is guilty of a misdemeanor and shall be punished by a fine (between $500–$1,000) and/or imprisonment for less than one year.

Regional Water Quality Control Board
Santa Ana Region (951) 782-4130
San Diego Region (858) 467-2952

- Requires the prevention, mitigation, response to and reporting of sewage spills.

California Office of Emergency Services
(800) 852-7550

California Water Code, Article 4, Chapter 4, Sections 13268-13271
California Code of Regulations, Title 23, Division 3, Chapter 9.2, Article 2, Sections 2250-2260

- Any person who causes or permits sewage in excess of 1,000 gallons to be discharged to state waters **shall immediately notify the Office of Emergency Services.**
- Any person who fails to provide the notice required by this section is **guilty of a misdemeanor** and shall be punished by a fine (less than $20,000) and/or imprisonment for not more than one year.

DTP113 Rev 4/06
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Sewage Spill
Reference Guide

Your Responsibilities as a Private Property Owner

Residences
Businesses
Homeowner/Condominium Associations
Federal and State Complexes
Military Facilities

Orange County Sanitation District

Health Care Agency
Environmental Health

PROJECT Pollution PREVENTION
www.ocwatersheds.com

This brochure was designed courtesy of the Orange County Sanitation District (OCSD). For additional information, call (714) 962-2411, or visit their website at www.ocsd.com

What is a Sewage Spill?

Sewage spills occur when the wastewater being transported via underground pipes overflows through a manhole, cleanout or broken pipe. Sewage spills can cause health hazards, damage to homes and businesses, and threaten the environment, local waterways and beaches.

Common Causes of Sewage Spills

Grease builds up inside and eventually blocks sewer pipes. Grease gets into the sewer from food establishments, household drains, as well as from poorly maintained commercial grease traps and interceptors.

Structure problems caused by tree roots in the lines, broken/cracked pipes, missing or broken cleanout caps or undersized sewers can cause blockages.

Infiltration and inflow (I/I) impacts pipe capacity and is caused when groundwater or rainwater enters the sewer system through pipe defects and illegal connections.

You Are Responsible for a Sewage Spill Caused by a Blockage or Break in Your Sewer Lines!

Time is of the essence in dealing with sewage spills. You are required to **immediately**:

Control and minimize the spill. Keep spills contained on private property and out of gutters, storm drains and public waterways by shutting off or not using the water.

Use sandbags, dirt and/or plastic sheeting to prevent sewage from entering the storm drain system.

Clear the sewer blockage. Always wear gloves and wash your hands. It is recommended that a plumbing professional be called for clearing blockages and making necessary repairs.

Always notify your city sewer/public works department or public sewer district of sewage spills. If the spill enters the storm drains also notify the Health Care Agency. In addition, if it exceeds 1,000 gallons notify the Office of Emergency Services. Refer to the numbers listed in this brochure.

Overflowing cleanout pipe located on private property

You Could Be Liable

Allowing sewage from your home, business or property to discharge to a gutter or storm drain may subject you to penalties and/or out-of-pocket costs to reimburse cities or public agencies for clean-up and enforcement efforts. See Regulatory Codes & Fines section for pertinent codes and fines that apply.

What to Look For

Sewage spills can be a very noticeable gushing of water from a manhole or a slow water leak that may take time to be noticed. Don't dismiss unaccounted-for wet areas.

Look for:

- Drain backups inside the building.
- Wet ground and water leaking around manhole lids onto your street.
- Leaking water from cleanouts or outside drains.
- Unusual odorous wet areas: sidewalks, external walls or ground/landscape around a building.

Caution

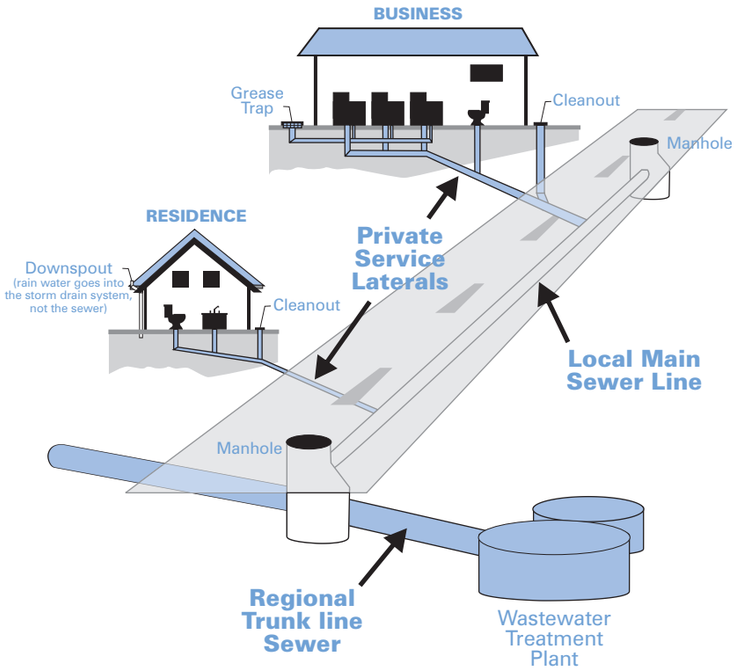
Keep people and pets away from the affected area. Untreated sewage has high levels of disease-causing viruses and bacteria. Call your local health care agency listed on the back for more information.

If You See a Sewage Spill Occurring, Notify Your City Sewer/Public Works Department or Public Sewer District IMMEDIATELY!

How a Sewer System Works

A property owner's sewer pipes are called service laterals and are connected to larger local main and regional trunk lines. Service laterals run from the connection at the home to the connection with the public sewer (including the area under the street). These laterals are the responsibility of the property owner and must be maintained by the property owner. Many city agencies have adopted ordinances requiring maintenance of service laterals. Check with your city sewer/local public works department for more information.

Operation and maintenance of **local and regional sewer lines** are the responsibility of the city sewer/public works departments and public sewer districts.



How You Can Prevent Sewage Spills

1. **Never put grease down garbage disposals, drains or toilets.**
2. **Perform periodic cleaning to eliminate grease, debris and roots in your service laterals.**
3. **Repair any structural problems in your sewer system and eliminate any rainwater infiltration/inflow leaks into your service laterals.**

Preventing Grease Blockages

The drain is not a dump! Recycle or dispose of grease properly and never pour grease down the drain.

Homeowners should mix fats, oils and grease with absorbent waste materials such as paper, coffee grounds, or kitty litter and place it in the trash. Wipe food scraps from plates and pans and dump them in the trash.

Restaurants and commercial food service establishments should always use "Kitchen Best Management Practices." These include:

- Collecting all cooking grease and liquid oil from pots, pans and fryers in covered grease containers for recycling.
- Scraping or dry-wiping excess food and grease from dishes, pots, pans and fryers into the trash.
- Installing drain screens on all kitchen drains.
- Having spill kits readily available for cleaning up spills.
- Properly maintaining grease traps or interceptors by having them serviced regularly. Check your local city codes.

Orange County Agency Responsibilites

- **City Sewer/Public Works Departments—** Responsible for protecting city property and streets, the local storm drain system, sewage collection system and other public areas.
- **Public Sewer/Sanitation District—** Responsible for collecting, treating and disposing of wastewater.
- **County of Orange Health Care Agency—** Responsible for protecting public health by closing ocean/bay waters and may close food-service businesses if a spill poses a threat to public health.
- **Regional Water Quality Control Boards—** Responsible for protecting State waters.
- **Orange County Stormwater Program—** Responsible for preventing harmful pollutants from being discharged or washed by stormwater runoff into the municipal storm drain system, creeks, bays and the ocean.

You Could Be Liable for Not Protecting the Environment

Local and state agencies have legal jurisdiction and enforcement authority to ensure that sewage spills are remedied.

They may respond and assist with containment, relieving pipe blockages, and/or clean-up of the sewage spill, especially if the spill is flowing into storm drains or onto public property.

A property owner may be charged for costs incurred by these agencies responding to spills from private properties.

Report Sewage Spills!

City Sewer/Public Works Departments

Aliso Viejo	(949) 425-2500
Anaheim	(714) 765-6860
Brea	(714) 990-7691
Buena Park	(714) 562-3655
Costa Mesa	(949) 645-8400
Cypress	(714) 229-6760
Dana Point	(949) 248-3562
Fountain Valley	(714) 593-4600
Fullerton	(714) 738-6897
Garden Grove	(714) 741-5375
Huntington Beach	(714) 536-5921
Irvine	(949) 453-5300
Laguna Beach	(949) 497-0765
Laguna Hills	(949) 707-2650
Laguna Niguel	(949) 362-4337
Laguna Woods	(949) 639-0500
La Habra	(562) 905-9792
Lake Forest	(949) 461-3480
La Palma	(714) 690-3310
Los Alamitos	(562) 431-3538
Mission Viejo	(949) 831-2500
Newport Beach	(949) 644-3011
Orange	(714) 532-6480
Orange County	(714) 567-6363
Placentia	(714) 993-8245
Rancho Santa Margarita	(949) 635-1800
San Clemente	(949) 366-1553
San Juan Capistrano	(949) 443-6363
Santa Ana	(714) 647-3380
Seal Beach	(562) 431-2527
Stanton	(714) 379-9222
Tustin	(714) 962-2411
Villa Park	(714) 998-1500
Westminster	(714) 893-3553
Yorba Linda	(714) 961-7170

Public Sewer/Water Districts

Costa Mesa Sanitary District	(714) 393-4433/ (949) 645-8400
El Toro Water District	(949) 837-0660
Emerald Bay Service District	(949) 494-8571
Garden Grove Sanitary District	(714) 741-5375
Irvine Ranch Water District	(949) 453-5300
Los Alamitos/Rossmoor Sewer District	(562) 431-2223
Midway City Sanitary District (Westminster)	(714) 893-3553
Moulton Niguel Water District	(949) 831-2500
Orange County Sanitation District	(714) 962-2411
Santa Margarita Water District	(949) 459-6420
South Coast Water District	(949) 499-4555
South Orange County Wastewater Authority	(949) 234-5400
Sunset Beach Sanitary District	(562) 493-9932
Trabuco Canyon Sanitary District	(949) 858-0277
Yorba Linda Water District	(714) 777-3018

Other Agencies

Orange County Health Care Agency	(714) 433-6419
Office of Emergency Services	(800) 852-7550

Clean beaches and healthy creeks, rivers, bays and ocean are important to Orange County. However, many common activities can lead to water pollution if you're not careful. Fertilizers, pesticides and other chemicals that are left on yards or driveways can be blown or washed into storm drains that flow to the ocean. Overwatering lawns can also send materials into storm drains. Unlike water in sanitary sewers (from sinks and toilets), water in storm drains is not treated before entering our waterways.

You would never pour gardening products into the ocean, so don't let them enter the storm drains. Follow these easy tips to help prevent water pollution.

For more information,
please call the
Orange County Stormwater Program
at **1-877-89-SPILL** (1-877-897-7455)
or visit
www.ocwatersheds.com

UCCE Master Gardener Hotline:
(714) 708-1646

To report a spill,
call the
Orange County 24-Hour
Water Pollution Problem
Reporting Hotline
1-877-89-SPILL (1-877-897-7455).

For emergencies, dial 911.

The tips contained in this brochure provide useful information to help prevent water pollution while landscaping or gardening. If you have other suggestions, please contact your city's stormwater representatives or call the Orange County Stormwater Program.

Printed on Recycled Paper

Help Prevent Ocean Pollution:

Tips for Landscape & Gardening

The Ocean Begins at Your Front Door

PROJECT Pollution PREVENTION

Tips for Landscape & Gardening

Never allow gardening products or polluted water to enter the street, gutter or storm drain.

General Landscaping Tips

- Protect stockpiles and materials from wind and rain by storing them under tarps or secured plastic sheeting.
- Prevent erosion of slopes by planting fast-growing, dense ground covering plants. These will shield and bind the soil.
- Plant native vegetation to reduce the amount of water, fertilizers, and pesticide applied to the landscape.

- Never apply pesticides or fertilizers when rain is predicted within the next 48 hours.

Garden & Lawn Maintenance

- Do not overwater. Use irrigation practices such as drip irrigation, soaker hoses or micro spray systems. Periodically inspect and fix leaks and misdirected sprinklers.
- Do not rake or blow leaves, clippings or pruning waste into the street, gutter or storm drain. Instead, dispose of green waste by composting, hauling it to a permitted landfill, or recycling it through your city's program.

- Use slow-release fertilizers to minimize leaching, and use organic fertilizers.
- Read labels and use only as directed. Do not over-apply pesticides or fertilizers. Apply to spots as needed, rather than blanketing an entire area.
- Store pesticides, fertilizers and other chemicals in a dry covered area to prevent exposure that may result in the deterioration of containers and packaging.

- Rinse empty pesticide containers and re-use rinse water as you would use the product. Do not dump rinse water down storm drains. Dispose of empty containers in the trash.
- When available, use non-toxic alternatives to traditional pesticides, and use pesticides specifically designed to control the pest you are targeting. For more information, visit **www.ipm.ucdavis.edu**.
- If fertilizer is spilled, sweep up the spill before irrigating. If the spill is liquid, apply an absorbent material such as cat litter, and then sweep it up and dispose of it in the trash.
- Take unwanted pesticides to a Household Hazardous Waste Collection Center to be recycled. Locations are provided below.

Household Hazardous Waste Collection Centers

Anaheim:	1071 N. Blue Gum St.
Huntington Beach:	17121 Nichols St.
Irvine:	6411 Oak Canyon
San Juan Capistrano:	32250 La Pata Ave.

For more information, call (714) 834-6752 or visit www.oclandfills.com

The Ocean Begins at Your Front Door

Never allow pollutants to enter the

street, gutter or storm drain!

Follow these simple steps to help reduce water pollution:

Household Activities

- Do not rinse spills with water. Use dry cleanup methods such as applying cat litter or another absorbent material, sweep and dispose of in the trash. Take items such as used or excess batteries, oven cleaners, automotive fluids, painting products and cathode ray tubes, like TVs and computer monitors, to a Household Hazardous Waste Collection Center (HHWCC).
- For a HHWCC near you call (714) 834-6752 or visit www.oclandfills.com.
- Do not hose down your driveway, sidewalk or patio to the street, gutter or storm drain. Sweep up debris and dispose of it in the trash.

Automotive

- Take your vehicle to a commercial car wash whenever possible. If you wash your vehicle at home, choose soaps, cleaners, or detergents labeled non-toxic, phosphate- free or biodegradable. Vegetable and citrus-based products are typically safest for the environment.
- Do not allow washwater from vehicle washing to drain into the street, gutter or storm drain. Excess washwater should be disposed of in the sanitary sewer (through a sink or toilet) or onto an absorbent surface like your lawn.
- Monitor your vehicles for leaks and place a pan under leaks. Keep your vehicles well maintained to stop and prevent leaks.
- Never pour oil or antifreeze in the street, gutter or storm drain. Recycle these substances at a service station, a waste oil collection center or used oil recycling center. For the nearest Used Oil Collection Center call 1-800-CLEANUP or visit www.1800cleanup.org.

Pool Maintenance

- Pool and spa water must be dechlorinated and free of excess acid, alkali or color to be allowed in the street, gutter or storm drain.
- When it is not raining, drain dechlorinated pool and spa water directly into the sanitary sewer.
- Some cities may have ordinances that do not allow pool water to be disposed of in the storm drain. Check with your city.

Landscape and Gardening

- Do not over-water. Water your lawn and garden by hand to control the amount of water you use or set irrigation systems to reflect seasonal water needs. If water flows off your yard onto your driveway or sidewalk, your system is over-watering. Periodically inspect and fix leaks and misdirected sprinklers.
- Do not rake or blow leaves, clippings or pruning waste into the street, gutter or storm drain. Instead, dispose of waste by composting, hauling it to a permitted landfill, or as green waste through your city's recycling program.
- Follow directions on pesticides and fertilizer, (measure, do not estimate amounts) and do not use if rain is predicted within 48 hours.
- Take unwanted pesticides to a HHWCC to be recycled. For locations and hours of HHWCC, call (714) 834-6752 or visit www.oclandfills.com.

Trash

- Place trash and litter that cannot be recycled in securely covered trash cans.
- Whenever possible, buy recycled products.
- Remember: Reduce, Reuse, Recycle.

Pet Care

- Always pick up after your pet. Flush waste down the toilet or dispose of it in the trash. Pet waste, if left outdoors, can wash into the street, gutter or storm drain.
- If possible, bathe your pets indoors. If you must bathe your pet outside, wash it on your lawn or another absorbent/permeable surface to keep the washwater from entering the street, gutter or storm drain.
- Follow directions for use of pet care products and dispose of any unused products at a HHWCC.

Common Pollutants

Home Maintenance

- Detergents, cleaners and solvents
- Oil and latex paint
- Swimming pool chemicals
- Outdoor trash and litter

Lawn and Garden

- Pet and animal waste
- Pesticides
- Clippings, leaves and soil
- Fertilizer

Automobile

- Oil and grease
- Radiator fluids and antifreeze
- Cleaning chemicals
- Brake pad dust

Even if you live miles from the Pacific Ocean, you may be unknowingly polluting it.

Dumping one quart of motor oil into a storm drain can contaminate 250,000 gallons of water.

Did You Know?

- Most people believe that the largest source of water pollution in urban areas comes from specific sources such as factories and sewage treatment plants. In fact, the largest source of water pollution comes from city streets, neighborhoods, construction sites and parking lots. This type of pollution is sometimes called “non-point source” pollution.
- There are two types of non-point source pollution: stormwater and urban runoff pollution.
- Stormwater runoff results from rainfall. When rainstorms cause large volumes of water to rinse the urban landscape, picking up pollutants along the way.
- Urban runoff can happen any time of the year when excessive water use from irrigation, vehicle washing and other sources carries trash, lawn clippings and other urban pollutants into storm drains.

Where Does It Go?

- Anything we use outside homes, vehicles and businesses – like motor oil, paint, pesticides, fertilizers and cleaners – can be blown or washed into storm drains.
- A little water from a garden hose or rain can also send materials into storm drains.
- Storm drains are separate from our sanitary sewer systems; unlike water in sanitary sewers (from sinks or toilets), water in storm drains is not treated before entering our waterways.

Sources of Non-Point Source Pollution

- Automotive leaks and spills.
- Improper disposal of used oil and other engine fluids.
- Metals found in vehicle exhaust, weathered paint, rust, metal plating and tires.
- Pesticides and fertilizers from lawns, gardens and farms.
- Improper disposal of cleaners, paint and paint removers.
- Soil erosion and dust debris from landscape and construction activities.
- Litter, lawn clippings, animal waste, and other organic matter.
- Oil stains on parking lots and paved surfaces.

The Effect on the Ocean

Non-point source pollution can have a serious impact on water quality in Orange County. Pollutants from the storm drain system can harm marine life as well as coastal and wetland habitats. They can also degrade recreation areas such as beaches, harbors and bays.

Stormwater quality management programs have been developed throughout Orange County to educate and encourage the public to protect water quality, monitor runoff in the storm drain system, investigate illegal dumping and maintain storm drains.

Support from Orange County residents and businesses is needed to improve water quality and reduce urban runoff pollution. Proper use and disposal of materials will help stop pollution before it reaches the storm drain and the ocean.

For More Information

California Environmental Protection Agency
www.calepa.ca.gov

- **Air Resources Board**
  www.arb.ca.gov
- **Department of Pesticide Regulation**
  www.cdpr.ca.gov
- **Department of Toxic Substances Control**
  www.dtsc.ca.gov
- **Integrated Waste Management Board**
  www.ciwmb.ca.gov
- **Office of Environmental Health Hazard Assessment**
  www.oehha.ca.gov
- **State Water Resources Control Board**
  www.waterboards.ca.gov

Earth 911 - Community-Specific Environmental Information 1-800-cleanup or visit www.1800cleanup.org

Health Care Agency's Ocean and Bay Water Closure and Posting Hotline
(714) 433-6400 or visit www.ocbeachinfo.com

Integrated Waste Management Dept. of Orange County (714) 834-6752 or visit www.oclandfills.com for information on household hazardous waste collection centers, recycling centers and solid waste collection

O.C. Agriculture Commissioner
(714) 447-7100 or visit www.ocagcomm.com

Stormwater Best Management Practice Handbook
Visit www.cabmphandbooks.com

UC Master Gardener Hotline
(714) 708-1646 or visit www.uccemg.com

The Orange County Stormwater Program has created and moderates an electronic mailing list to facilitate communications, take questions and exchange ideas among its users about issues and topics related to stormwater and urban runoff and the implementation of program elements. To join the list, please send an email to ocstormwaterinfo-join@list.ocwatersheds.com

Orange County Stormwater Program

Aliso Viejo	(949)	425-2535
Anaheim Public Works Operations	(714)	765-6860
Brea Engineering	(714)	990-7666
Buena Park Public Works	(714)	562-3655
Costa Mesa Public Services	(714)	754-5323
Cypress Public Works	(714)	229-6740
Dana Point Public Works	(949)	248-3584
Fountain Valley Public Works	(714)	593-4441
Fullerton Engineering Dept.	(714)	738-6853
Garden Grove Public Works	(714)	741-5956
Huntington Beach Public Works	(714)	536-5431
Irvine Public Works	(949)	724-6315
La Habra Public Services	(562)	905-9792
La Palma Public Works	(714)	690-3310
Laguna Beach Water Quality	(949)	497-0378
Laguna Hills Public Services	(949)	707-2650
Laguna Niguel Public Works	(949)	362-4337
Laguna Woods Public Works	(949)	639-0500
Lake Forest Public Works	(949)	461-3480
Los Alamitos Community Dev.	(562)	431-3538
Mission Viejo Public Works	(949)	470-3056
Newport Beach, Code & Water Quality Enforcement	(949)	644-3215
Orange Public Works	(714)	532-6480
Placentia Public Works	(714)	993-8245
Rancho Santa Margarita	(949)	635-1800
San Clemente Environmental Programs	(949)	361-6143
San Juan Capistrano Engineering	(949)	234-4413
Santa Ana Public Works	(714)	647-3380
Seal Beach Engineering	(562)	431-2527 x317
Stanton Public Works	(714)	379-9222 x204
Tustin Public Works/Engineering	(714)	573-3150
Villa Park Engineering	(714)	998-1500
Westminster Public Works/Engineering	(714)	898-3311 x446
Yorba Linda Engineering	(714)	961-7138
Orange County Stormwater Program	(877)	897-7455

Orange County 24-Hour
Water Pollution Problem Reporting Hotline
1-877-89-SPILL (1-877-897-7455)

On-line Water Pollution Problem Reporting Form
www.ocwatersheds.com

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The Ocean Begins at Your Front Door

Attachment A

Operations and Maintenance (O&M) Plan

Water Quality Management Plan
for

15172 GOLDENWEST CIRCLE

WESTMINSTER, CA

Owner: Tin Phan			
Title	General Manager		
Company	405 Cabinets & Stone		
Address	2401 Pullman St., Santa Ana		
Email	tin@405cs.com		
Telephone #	714-943-8013		
I understand my responsibility to implement the provisions of this WQMP including the ongoing operation and maintenance of the best management practices (BMPs) described herein. I am aware of the maintenance responsibilities of the proposed BMPs. A funding mechanism is in place to maintain the BMPs at the frequency stated in the SUSMP.			
Owner Signature		Date	

BMP Applicable? Yes/No	BMP Name and BMP Implementation, Maintenance, and Inspection Procedures	Implementation, Maintenance, and Inspection Frequency and Schedule	Person or Entity with Operation & Maintenance Responsibility
Non-Structural Source Control BMPs			
Yes	N1. Education for Property Owners, Tenants and Occupants Practical information materials will be provided to the first occupants/tenants on general housekeeping practices that contribute to the protection of stormwater quality. These materials will be initially developed and provided to first occupants/tenants by the developer. Thereafter such materials will be available through the Permittees' education program. Different materials for residential, office commercial, retail commercial, vehicle-related commercial and industrial uses will be developed.	Annual training session to be conducted with trained professional	Owner
No	N2. Activity Restriction		

BMP Applicable? Yes/No	BMP Name and BMP Implementation, Maintenance, and Inspection Procedures	Implementation, Maintenance, and Inspection Frequency and Schedule	Person or Entity with Operation & Maintenance Responsibility
Yes	N3. Common Area Landscape Management Landscape maintenance shall be consistent with the County Water Conservation Resolution (or city equivalent) that include fertilizer and/or pesticide usage consistent with Management Guidelines for Use of Fertilizers (DAMP Section 5.5). IPM practices are encouraged over the sole use of pesticides as the primary means of pest management . Contractors should evaluate the non-chemical components of IPM before intensive use of pesticides. The goal of IPM is not to eliminate all pests, but to keep their populations at tolerable levels. Pesticides may be part of an IPM program, but they should only be used after the pests exceed established thresholds and only applied in the affected area. In general, pest control strategies should be those that are least disruptive to biological control organisms (natural enemies), least hazardous to humans and the environment (including non-target organisms), and have the best likelihood of long-term effectiveness. Pesticides should not be applied until pests are approaching damaging levels. Because this requires early detection of the pests, monitoring on a regular basis is extremely important and should be used to determine if natural enemies are present and adequately controlling the pest. If possible, a person should be trained and designated to scout the sites on a regular basis.	Monthly	Owner
Yes	N4. BMP Maintenance The Project WQMP shall identify responsibility for implementation of each non-structural BMP and scheduled cleaning and/or maintenance of all structural BMP facilities.	Quarterly	Owner

BMP Applicable? Yes/No	BMP Name and BMP Implementation, Maintenance, and Inspection Procedures	Implementation, Maintenance, and Inspection Frequency and Schedule	Person or Entity with Operation & Maintenance Responsibility
No	N5. Title 22 CCR Compliance		
No	N7. Spill Contingency Plan		
No	N8. Underground Storage Tank Compliance		
No	N9. Hazardous Materials Disclosure Compliance		
Yes	N10. Uniform Fire Code Implementation Compliance with Article 80 of the Uniform Fire Code enforced by fire protection agency.	Annually	Owner
Yes	N11. Common Area Litter Control The owner is required to implement trash management and litter control procedures in the public areas aimed at reducing pollution of drainage water. The owner may contract with their landscape maintenance firms to provide this service during regularly scheduled maintenance, which should consist of litter patrol, emptying of trash receptacles in public areas.	Weekly	Owner
Yes	N12. Employee Training Education program (see N1) as it would apply to future employees of individual businesses including training on the proper storage and use of fertilizers and pesticides, and training on the implementation of spill contingency plans.	Annual training session to be conducted with trained professional	Owner
No	N13. Housekeeping of Loading Docks		

BMP Applicable? Yes/No	BMP Name and BMP Implementation, Maintenance, and Inspection Procedures	Implementation, Maintenance, and Inspection Frequency and Schedule	Person or Entity with Operation & Maintenance Responsibility
Yes	N14. Common Area Catch Basin Inspection The owner is required to have at least 80 percent of drainage facilities inspected, cleaned and maintained on an annual basis with 100 percent of the facilities included in a two-year period. Cleaning should take place in the late summer/early fall prior to the start of the rainy season. Drainage facilities include catch basins (storm drain inlets). Records should be kept to document the annual maintenance.	Annually	Owner
Yes	N15. Street Sweeping Private Streets and Parking Lots Streets and parking lots are required to be swept prior to the storm season, in late summer or early fall, prior to the start of the rainy season or equivalent as required by the governing jurisdiction.	Quarterly	Owner
No	N17. Retail Gasoline Outlets		
Structural Source Control BMPs			

BMP Applicable? Yes/No	BMP Name and BMP Implementation, Maintenance, and Inspection Procedures	Implementation, Maintenance, and Inspection Frequency and Schedule	Person or Entity with Operation & Maintenance Responsibility
Yes	S1. Provide Storm Drain System Stenciling and Signage Storm drain stencils are highly visible source control messages, typically placed directly adjacent to storm drain inlets. The stencils contain a brief statement that prohibits the dumping of improper materials into the municipal storm drain system. Graphical icons, either illustrating anti-dumping symbols or images of receiving water fauna, are effective supplements to the antidumping message. Stencils and signs alert the public to the destination of pollutants discharged into stormwater. The following requirements should be included in the project design and shown on the project plans: 4. Provide stenciling or labeling of all storm drain inlets and catch basins, constructed or modified, within the project area with prohibitive language (such as: "NO DUMPINGDRAINS TO OCEAN") and/or graphical icons to discourage illegal dumping. 5. Post signs and prohibitive language and/or graphical icons, which prohibit illegal dumping at public access points along channels and creeks within the project area. 6. Maintain legibility of stencils and signs. See CASQA Stormwater Handbook BMP Fact Sheet SD-13 for additional information.	Annually	owner
No	Design and Construct Outdoor Material Storage Areas to Reduce Pollutant Introduction		

BMP Applicable? Yes/No	BMP Name and BMP Implementation, Maintenance, and Inspection Procedures	Implementation, Maintenance, and Inspection Frequency and Schedule	Person or Entity with Operation & Maintenance Responsibility
Yes	S3. Design and Construct Trash and Waste Storage Areas to Reduce Pollutant Introduction Design trash storage areas to reduce pollutant introduction. All trash container areas shall meet the following requirements: 1. Paved with an impervious surface, designed not to allow run-on from adjoining areas, designed to divert drainage from adjoining roofs and pavements diverted around the area, screened or walled to prevent off-site transport of trash; and 2. Provide solid roof or awning to prevent direct precipitation. Connection of trash area drains to the municipal storm drain system is prohibited. Potential conflicts with fire code and garbage hauling activities should be considered in implementing this source control. See CASQA Stormwater Handbook Section 3.2.9 and BMP Fact Sheet SD-32 for additional information.	Quarterly	Owner

BMP Applicable? Yes/No	BMP Name and BMP Implementation, Maintenance, and Inspection Procedures	Implementation, Maintenance, and Inspection Frequency and Schedule	Person or Entity with Operation & Maintenance Responsibility
Yes	S4. Use Efficient Irrigation Systems & Landscape Design Projects shall design the timing and application methods of irrigation water to minimize the runoff of excess irrigation water into the municipal storm drain system. The following methods to reduce excessive irrigation runoff shall be considered, and incorporated: 1. Employing rain shutoff devices to prevent irrigation after precipitation. 2. Designing irrigation systems to each landscape area's specific water requirements. 3. Using flow reducers or shutoff valves triggered by a pressure drop to control water loss in the event of broken sprinkler heads or lines. 4. Implementing landscape plan consistent with County Water Conservation Resolution or city equivalent, which may include provision of water sensors, programmable irrigation times (for short cycles), etc. 5. The timing and application methods of irrigation water shall be designed to minimize the runoff of excess irrigation water into the municipal storm drain system. 6. Employing other comparable, equally effective, methods to reduce irrigation water runoff. Irrigation practices shall comply with local and statewide ordinances related to irrigation efficiency.	Quarterly	Owner
No	Protect Slopes and Channels and Provide Energy Dissipation		
No	Loading Docks		
No	Maintenance Bays		

BMP Applicable? Yes/No	BMP Name and BMP Implementation, Maintenance, and Inspection Procedures	Implementation, Maintenance, and Inspection Frequency and Schedule	Person or Entity with Operation & Maintenance Responsibility
No	SD-33. Vehicle Wash Areas Projects that include areas for washing /steam cleaning of vehicles shall use the following: 1. Self-contained or covered with a roof or overhang. 2. Equipped with a wash racks, and with the prior approval of the sewerage agency (Note: Discharge monitoring may be required by the sewerage agency). 3. Equipped with a clarifier or other pretreatment facility. 4. If there are no other alternatives, discharge of non-stormwater flow to the sanitary sewer may be considered only allowed by the local sewerage agency through permitted connection. Alternately, non-storm water discharges may require a separate NPDES permit in order to discharge to the MS4. Some local jurisdictions also have permitting systems in place for these situations. 5. Other features which are comparable and equally effective that prevent unpermitted discharges, to the municipal storm drain system. See CASQA Stormwater Handbook Sections 3.2.7 and 3.2.10 and Fact Sheet SD-33 for additional information.		
No	Outdoor Processing Areas		
No	Equipment Wash Areas		
No	Fueling Areas		
No	Hillside Landscaping		
No	Wash Water Controls for Food Preparation Areas		
No	Community Car Wash Racks		
Treatment Control BMPs			

BMP Applicable? Yes/No	BMP Name and BMP Implementation, Maintenance, and Inspection Procedures	Implementation, Maintenance, and Inspection Frequency and Schedule	Person or Entity with Operation & Maintenance Responsibility
Yes	Bioretention Modular System Inspect and clean – Remove accumulated trash & debris – Monthly. Inspect and repair- Replace mulch, repair or replace damaged components – Annually.	Start of wet season Monthly & annually	Owner
Yes	Pump- Manufacture Manual to be used for Maintenance & Inspection Procedure	Monthly & annually	Owner

Required Permits

No permits are required.

Forms to Record BMP Implementation, Maintenance, and Inspection

The form that will be used to record implementation, maintenance, and inspection of BMPs is attached.

Recordkeeping

All records must be maintained for at least five (5) years and must be made available for review upon request.

Today's Date: _____

Name of Person Performing Activity (Printed): _____

Signature: _____

BMP Name (As Shown in O&M Plan)	Brief Description of Implementation, Maintenance, and Inspection Activity Performed

Attachment B

WQMP Site Plan

Attachment C

EDUCATIONAL MATERIALS

For developments with less than fifty (50) dwelling units, practical information materials will be provided to the first occupants/tenants on general housekeeping practices that contribute to the protection of stormwater quality. These materials will be initially developed and provided to first occupants/ tenants by the developer. Thereafter such materials will be available through the Permittees education program. Refer to the Orange County Stormwater Program (ocwatersheds.com) for a library of materials available.

The following materials from the Orange County Stormwater Program are included herein:

- Proper Maintenance Practices for Your Business
- Homeowner Tips Protecting Water
- Responsible Pest Control
- Tips for Landscape & Gardening
- The Ocean Begins at Your Front Door

The following CASQA BMP fact sheets are included herein:

- SD-12 Efficient Irrigation

Attachment D

LEGAL DESCRIPTION

PARCEL A:

PARCEL 2 OF LOT LINE ADJUSTMENT LL #2003-01, RECORDED DECEMBER 11, 2003 AS INSTRUMENT NO. 2003001474811 OF OFFICIAL RECORDS.

PARCEL B:

AN EASEMENT FOR INGRESS, EGRESS, MAINTENANCE, DRAINAGE AND INCIDENTAL PURPOSES AS DESCRIBED AND CONVEYED IN THAT CERTAIN "RECIPROCAL EASEMENT FOR INGRESS, EGRESS, MAINTENANCE, DRAINAGE AND INCIDENTAL PURPOSES" RECORDED DECEMBER 16, 2003 AS INSTRUMENT NO. 2003001485855 OF OFFICIAL RECORDS.

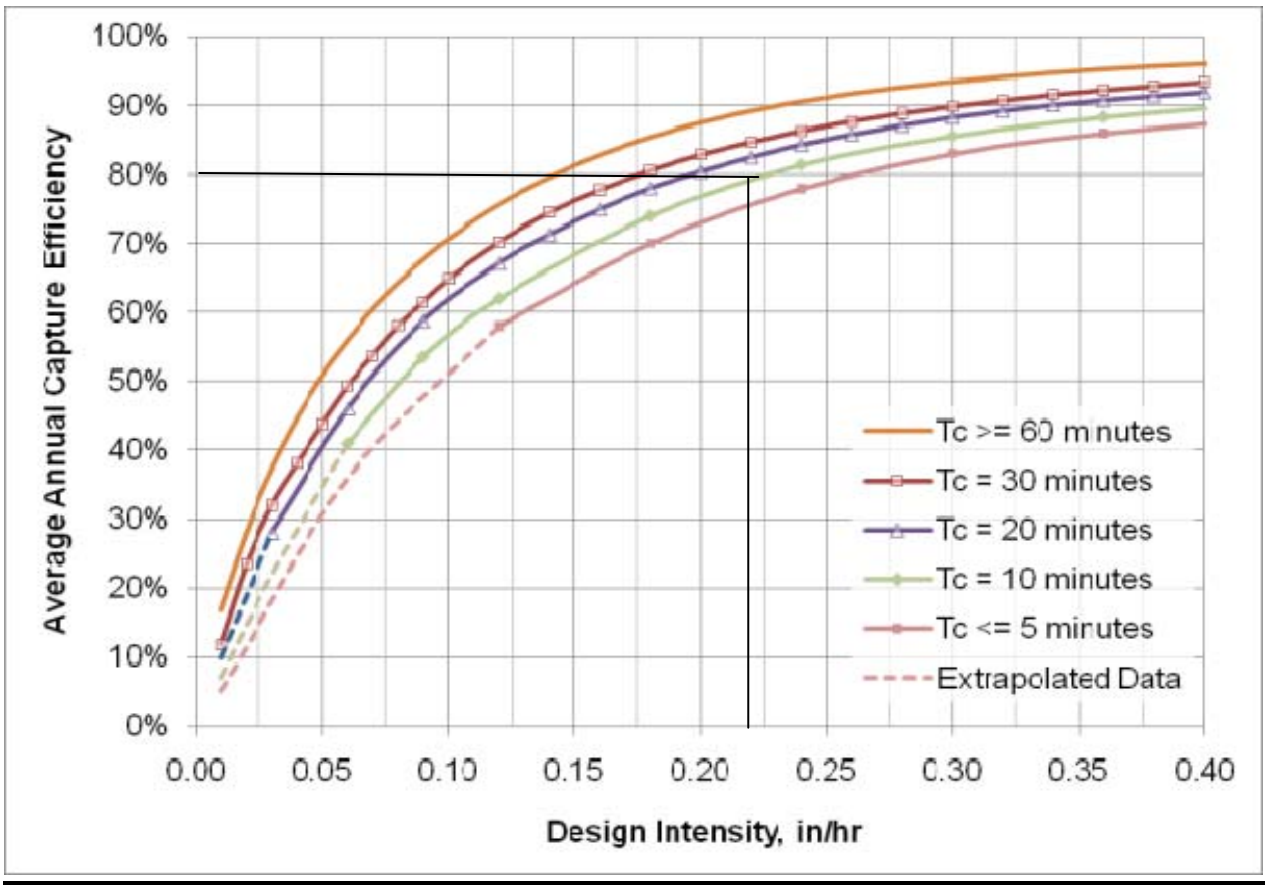
APN: 142-421-13 and 142-315-03

Attachment E

BMP-1

Worksheet A: Capture Efficiency Method for Flow-Based BMPs

Step 1: Determine the design capture storm depth used for calculating volume				
1	Enter the time of concentration, T_c (min)	T_c=	12	
2	Using graph below determine the design intensity at which the estimated time of concentration (T_c) achieves 80% capture efficiency, I_1	I_1=	0.22	in/hr
3	Enter the effect depth of provided HSCs upstream, d_{HSC} (inches)	d_{HSC}=	0	inches
4	Enter capture efficiency corresponding to d_{HSC}, Y_2	Y_2=	0	%
5	Using graph below, determine the design intensity at which the time of concentration (T_c) achieves the upstream capture efficiency(Y_2), I_2	I_2=	0	
6	Determine the design intensity that must be provided by BMP, $I_{design} = I_1 - I_2$	I_{design}=	0.22	
Step 2: Calculate the design flowrate				
1	Enter Project area tributary to BMP (s), *A* (acres)	A1= A2=	2.38 2.95	Ac
2	Enter Project Imperviousness, *imp* (unitless)	Imp1= Imp2=	0.854 0.932	
3	Calculate runoff coefficient, $C = (0.75 \times imp) + 0.15$	C1= C2=	0.79 0.85	
4	Calculate design flowrate, $Q_{design} = (C \times i_{design} \times A)$	$Q1_{design}$= $Q2_{design}$=	0.45 0.55	cfs
Supporting Calculations				
Describe system: Area DMA-1 will drain to MWS-L-8-16-C Stormwater bio-treatment BMP. The rated flow for the BMP per manufacturer as shown in Table 0.462 cfs ✓OK Area DMA-2 will drain to MWS-L-8-24-C Stormwater bio-treatment BMP. The rated flow for the BMP per manufacturer as shown in Table 0.69 cfs ✓OK				
Provide time of concentration assumptions: Very small area Tc is less than 5 minutes using Figure D-1 from the OC Hydrology Manual, use 5 minutes for calculations.				
Graphical Operations				


100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Average Annual Capture Efficiency
0.00
0.05
0.10
0.15
0.20
0.25
0.30
0.35
0.40
Design Intensity, in/hr
Tc >= 60 minutes
Tc = 30 minutes
Tc = 20 minutes
Tc = 10 minutes
Tc <= 5 minutes
Extrapolated Data

APPENDIX 2

BIO-7: Proprietary Biotreatment

Proprietary biotreatment devices are devices that are manufactured to mimic natural systems such as bioretention areas by incorporating plants, soil, and microbes engineered to provide treatment at higher flow rates or volumes and with smaller footprints than their natural counterparts. Incoming flows are typically filtered through a planting media (mulch, compost, soil, plants, microbes, etc.) and either infiltrated or collected by an underdrain and delivered to the storm water conveyance system. Tree box filters are an increasingly common type of proprietary biotreatment device that are installed at curb level and filled with a bioretention type soil. For low to moderate flows they operate similarly to bioretention systems and are bypassed during high flows. Tree box filters are highly adaptable solutions that can be used in all types of development and in all types of soils but are especially applicable to dense urban parking lots, street, and roadways.

Also known as:

- *Catch basin planter box*
- *Bioretention vault*
- *Tree box filter*

Proprietary biotreatment
Source: http://www.americastusa.com /index.php/filterra/

Feasibility Screening Considerations

- Proprietary biotreatment devices that are unlined may cause incidental infiltration. Therefore, an evaluation of site conditions should be conducted to evaluate whether the BMP should include an impermeable liner to avoid infiltration into the subsurface.

Opportunity Criteria

- Drainage areas of 0.25 to 1.0 acres.
- Land use may include commercial, residential, mixed use, institutional, and subdivisions. Proprietary biotreatment facilities may also be applied in parking lot islands, traffic circles, road shoulders, and road medians.
- Must not adversely affect the level of flood protection provided by the drainage system.

OC-Specific Design Criteria and Considerations

☐ X Frequent maintenance and the use of screens and grates to keep trash out may decrease the likelihood of clogging and prevent obstruction and bypass of incoming flows.

☐ X Consult proprietors for specific criteria concerning the design and performance.

☐ X Proprietary biotreatment may include specific media to address pollutants of concern. However, for proprietary device to be considered a biotreatment device the media must be capable of supporting rigorous growth of vegetation.

☐ X Proprietary systems must be acceptable to the reviewing agency. Reviewing agencies shall have the discretion to request performance information. Reviewing agencies shall have the discretion to deny the use of a proprietary BMP on the grounds of performance, maintenance considerations, or other relevant factors.

☐ X In right of way areas, plant selection should not impair traffic lines of site. Local jurisdictions may also limit plant selection in keeping with landscaping themes.

Computing Sizing Criteria for Proprietary Biotreatment Device

- Proprietary biotreatment devices can be volume based or flow-based BMPs.
- Volume-based proprietary devices should be sized using the Error! Reference source not found. described in **Appendix** Error! Reference source not found. or the Error! Reference source not found. **described in Appendix** Error! Reference source not found..
- The required design flowrate for flow-based proprietary devices should be computed using the Error! Reference source not found. described in **Appendix** Error! Reference source not found.).

Additional References for Design Guidance

- Los Angeles Unified School District (LAUSD) Stormwater Technical Manual, Chapter 4: **http://www.laschools.org/employee/design/fs-studies-and-reports/download/white_paper_report_material/Storm_Water_Technical_Manual_2009-opt-red.pdf?version_id=76975850**
- Los Angeles County Stormwater BMP Design and Maintenance Manual, Chapter 9: **http://dpw.lacounty.gov/DES/design_manuals/StormwaterBMPDesignandMaintenance.pdf**
- Santa Barbara BMP Guidance Manual, Chapter 6: **http://www.santabarbaraca.gov/NR/rdonlyres/91D1FA75-C185-491E-A882-49EE17789DF8/0/Manual_071008_Final.pdf**

Worksheet I: Summary of Groundwater-related Feasibility Criteria

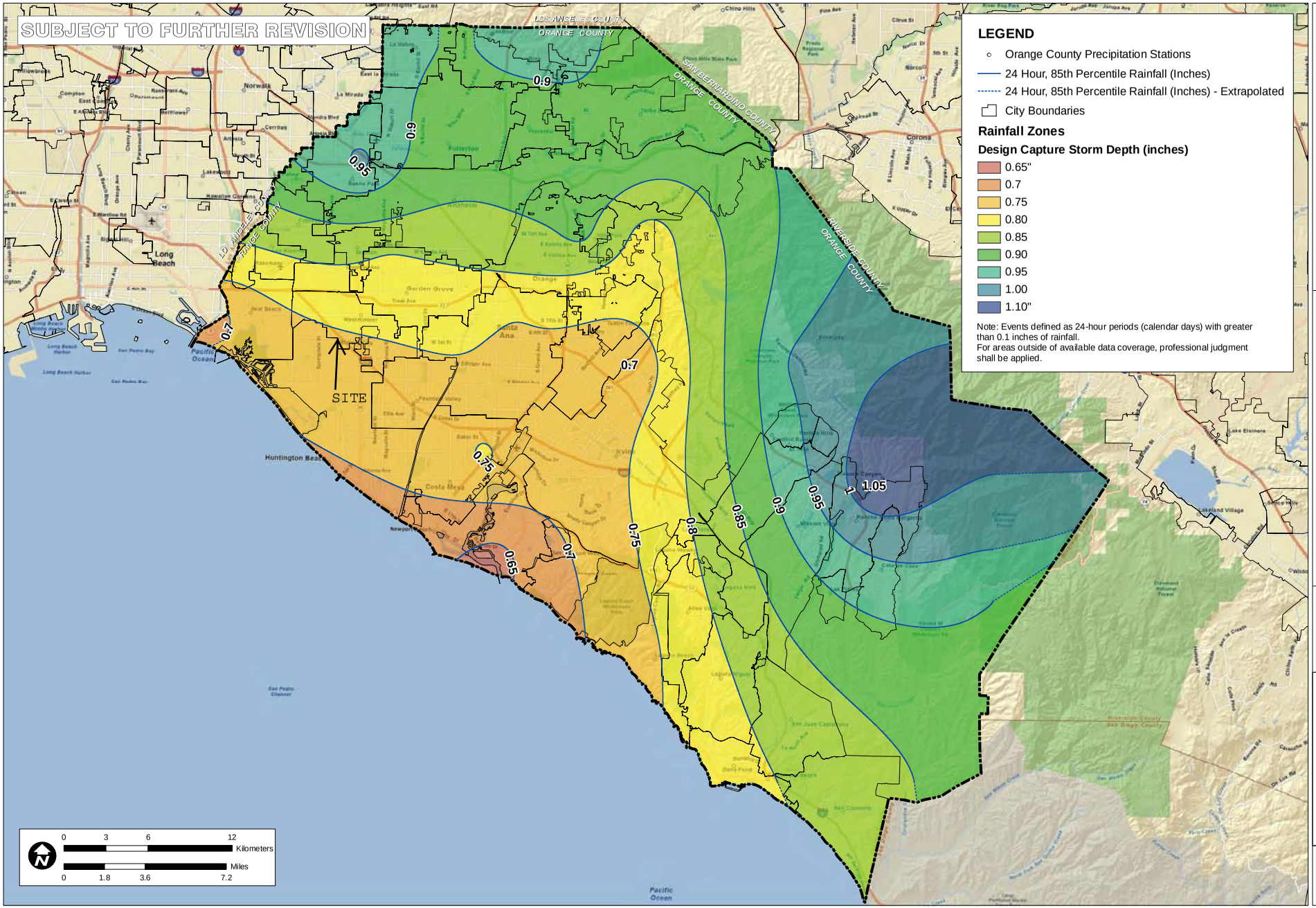
Worksheet I: Summary of Groundwater-related Feasibility Criteria

1	Is project large or small? (as defined by Table VIII.2) circle one	Large		Small X
2	What is the tributary area to the BMP?	A	0.21	acres
3	What type of BMP is proposed?	Bioretention		
4	What is the infiltrating surface area of the proposed BMP?	A_{BMP}	9,220	sq-ft
5	What land use activities are present in the tributary area (list all) Commercial use (parking lot)			
6	What land use-based risk category is applicable?	(L)	M	H
7	If M or H, what pretreatment and source isolation BMPs have been considered and are proposed (describe all): n/a			
8	What minimum separation to mounded seasonally high groundwater applies to the proposed BMP? See Section VIII.2 (circle one)	(5 ft)	10 ft	
9	Provide rationale for selection of applicable minimum separation to seasonally high mounded groundwater: soils report			
10	What is separation from the infiltrating surface to seasonally high groundwater?	SHGWT	5	ft
11	What is separation from the infiltrating surface to mounded seasonally high groundwater?	Mounded SHGWT		ft
12	Describe assumptions and methods used for mounding analysis: CA Dept. of Water Resourses			
13	Is the site within a plume protection boundary	(Y)	N	N/A
14	Is the site within a selenium source area or other natural plume area	(Y)	N	N/A
15	Is the site within 250 feet of a contaminated site?	(Y)	N	N/A
16	If site-specific study has been prepared, provide citation and briefly summarize relevant findings: no			
17	Is the site within 100 feet of a water supply well, spring, septic system?	Y	(N)	N/A
18	Is infiltration feasible on the site relative to groundwater-related criteria?	Y	(N)	
Provide rationale for feasibility determination: soils report				

Note: if a single criterion or group of criteria would render infiltration infeasible, it is not necessary to evaluate every question in this worksheet.

Attachment F

TECHNICAL GUIDANCE DOCUMENTS



P:\9526E\16-GIS\Mxds\Reports\InfiltrationFeasability_20110215\9526E_FigureXVI-1_RainfallZones_20110215.mxd

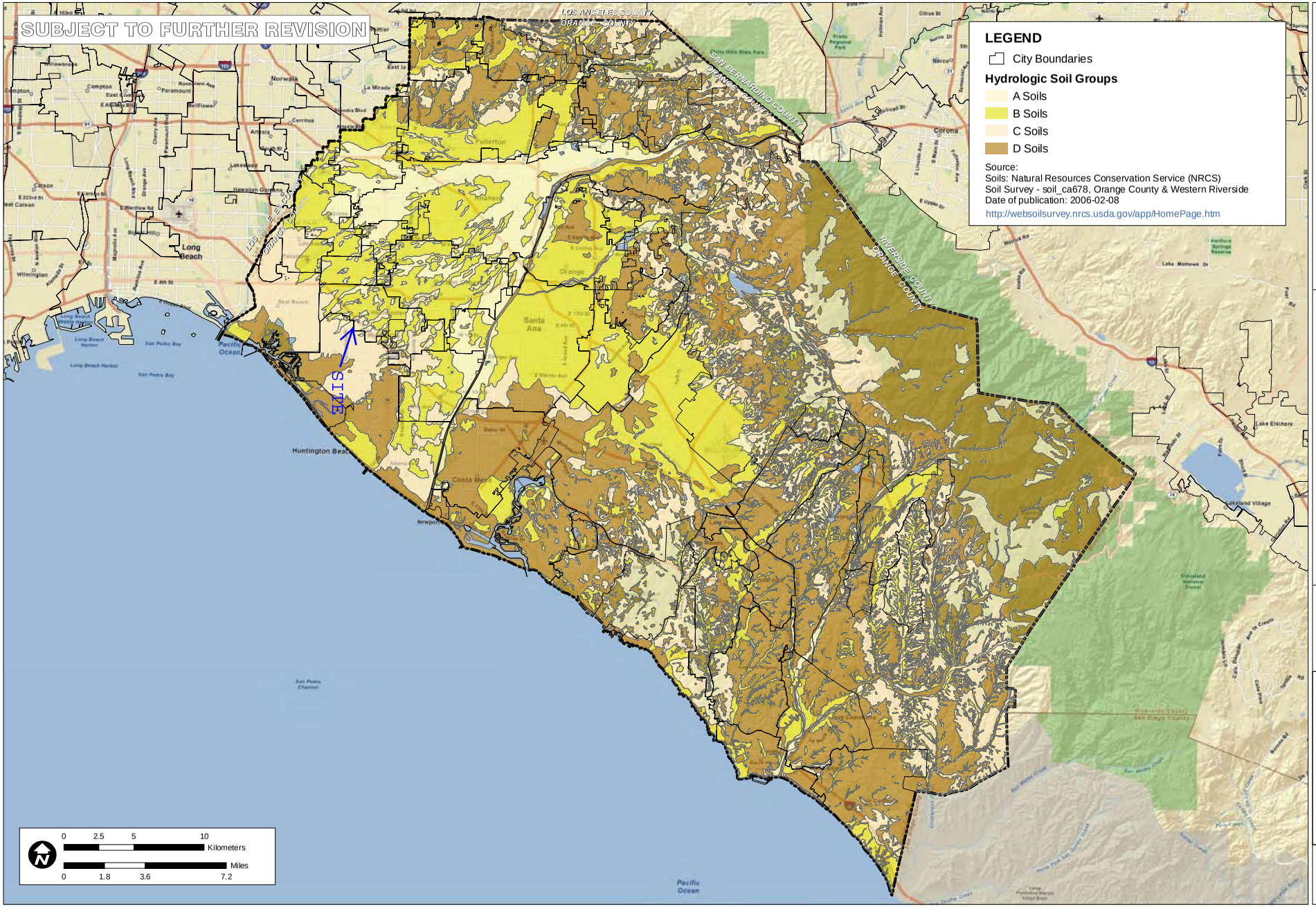
TITLE
RAINFALL ZONES

JOB
ORANGE COUNTY
TECHNICAL GUIDANCE
DOCUMENT
ORANGE CO. CA

SCALE	1" = 1.8 miles
DESIGNED	TH
DRAWING	TH
CHECKED	BMP
DATE	04/22/10
JOB NO.	9526-E

PACE
Advanced Water Engineering

FIGURE
XVI-1



TITLE
NRCS HYDROLOGIC SOILS GROUPS

JOB
ORANGE COUNTY INFILTRATION STUDY
ORANGE CO. CA

SCALE	1" = 1.8 miles
DESIGNED	TH
DRAWING	TH
CHECKED	BMP
DATE	02/09/11
JOB NO.	9526-E

PACE
Advanced Water Engineering

FIGURE
XVI-2a

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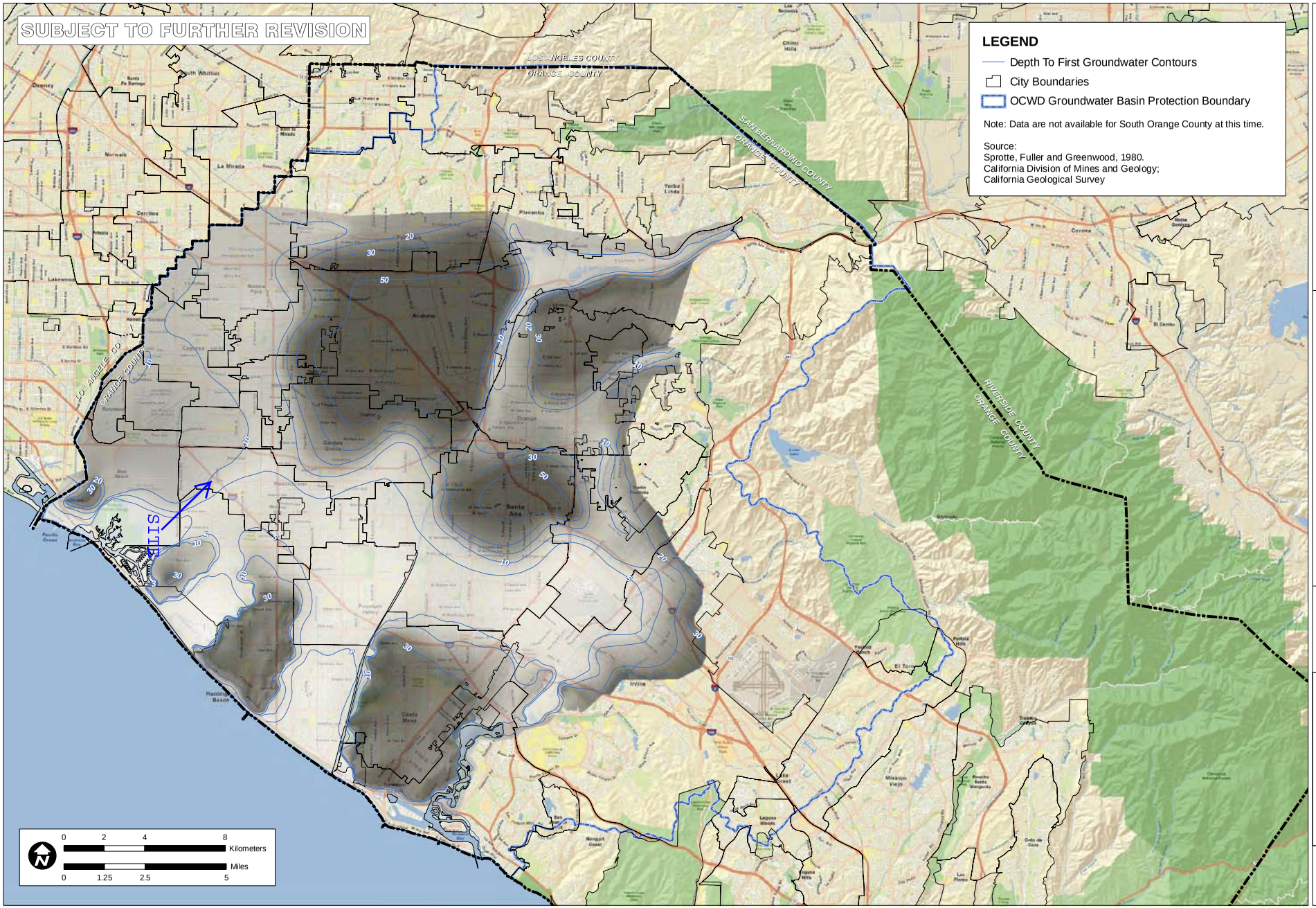


TITLE
NORTH ORANGE COUNTY
MAPPED DEPTH TO FIRST
GROUNDWATER

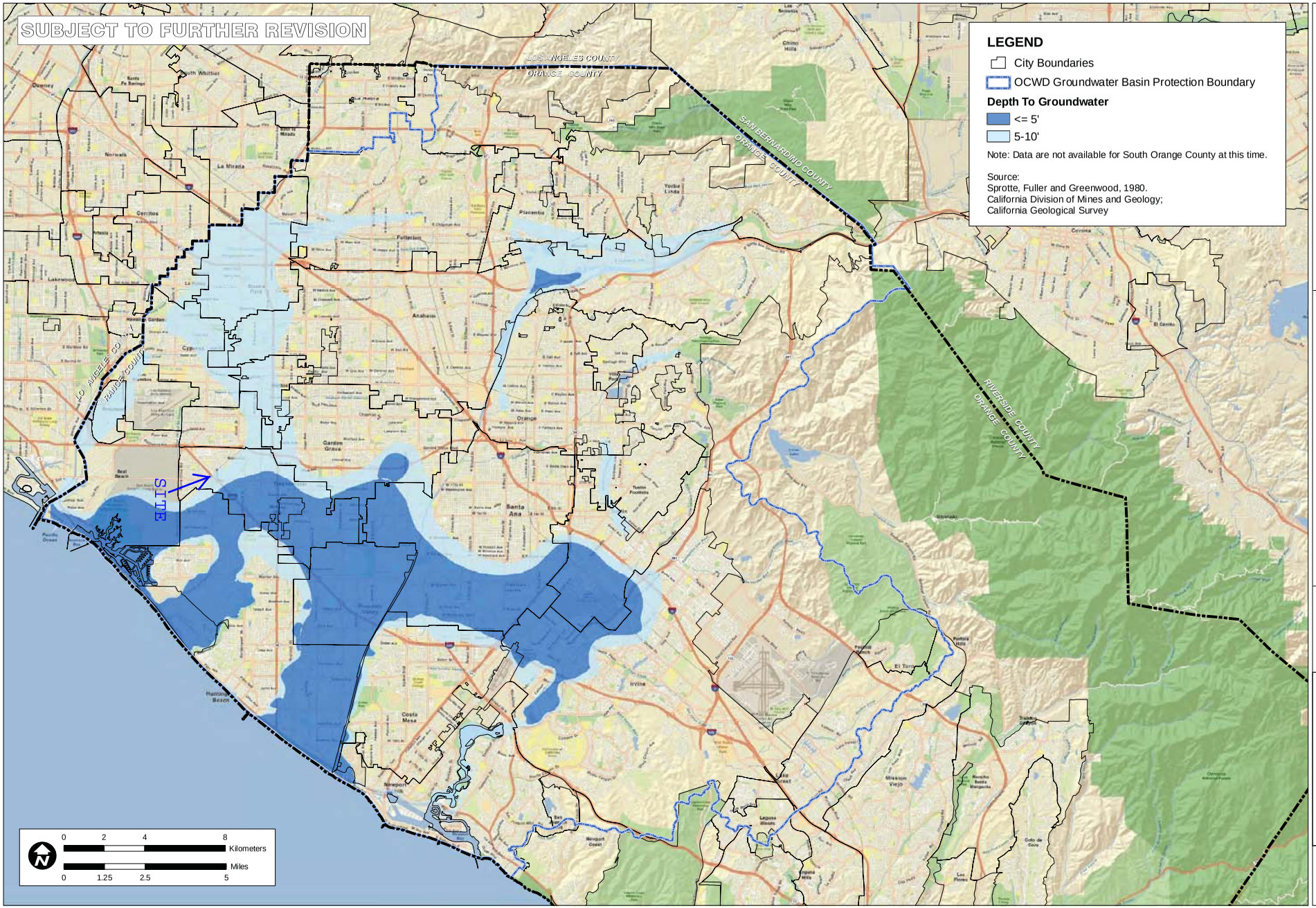
JOB
ORANGE COUNTY
INFILTRATION STUDY
ORANGE CO. CA

SCALE 1" = 1.25 miles
DESIGNED TH
DRAWING TH
CHECKED BMP
DATE 02/09/11
JOB NO. 9526-E

PACE
Advanced Water Engineering

FIGURE
XVI-2d

P:\9526E\6-GIS\Mxds\Reports\InfiltrationFeasability_20110215\9526E_FigureXVI-2d_DepthToGroundwaterOverview_20110215.mxd



TITLE
NORTH ORANGE COUNTY
MAPPED SHALLOW GROUNDWATER

JOB
ORANGE COUNTY
INFILTRATION STUDY
ORANGE CO. CA

SCALE 1" = 1.25 miles
DESIGNED TH
DRAWING TH
CHECKED BMP
DATE 02/09/11
JOB NO. 9526-E

PACE
Advanced Water Engineering

FIGURE
XVI-2e

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P:\95266\6-GIS\Mxds\Reports\InfiltrationFeasability_20110215\95266_FigureXVI-2f_NorthOCGroundwaterProtectionAreasStreetMap_20110215.mxd

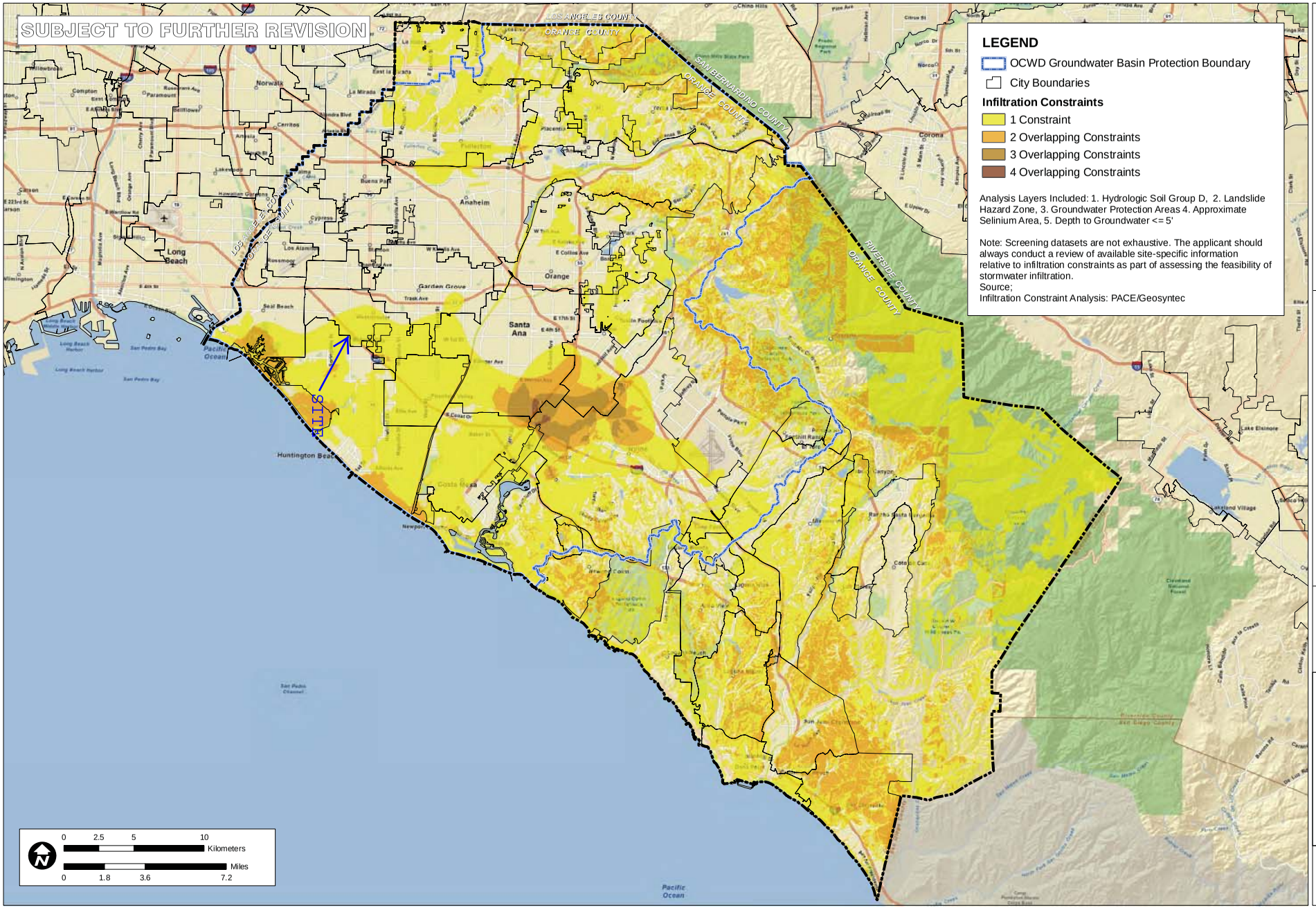
SCALE	1" = 1.25 miles
DESIGNED	TH
DRAWING	TH
CHECKED	BMP
DATE	04/22/10
JOB NO.	95266

FIGURE XVI-2f

JOB ORANGE CO. CA

ORANGE COUNTY INFILTRATION STUDY

TITLE NORTH ORANGE COUNTY GROUNDWATER PROTECTION AREAS



TITLE
INFILTRATION ANALYSIS
OVERLAPPING CONSTRAINT LOCATIONS

JOB
ORANGE COUNTY
INFILTRATION STUDY
ORANGE CO. CA

SCALE	1" = 1.8 miles
DESIGNED	TH
DRAWING	TH
CHECKED	BMP
DATE	04/22/10
JOB NO.	9526-E

PACE
Advanced Water Engineering

FIGURE
XVI-2g

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Susceptibility

Potential Areas of Erosion, Habitat, & Physical Structure Susceptibility

Channel Type

- Earth (Unstable)
- Earth (Stabilized)
- Stabilized

Tidel Influence

- <= Mean High Water Line (4.28')

Water Body

- Basin
- Dam
- Lake
- Reservoir

Forest Areas

- Cleveland National Forest

Federal Lands

- Amarus Salt Marsh

San Gabriel-Coyote Creek Watershed

San Bernardino County

Riverside County

South Orange County

Carbon Canyon

Yorba Linda Reservoir

Miller Retarding Basin

Anaheim Lake

Warner Basin

Kraemer Basin

Fletcher Retarding Basin

Olive Hills

Walnut Canyon Reservoir

Villa Park Dam

Peters Canyon Reservoir

Irvine Lake

Cleveland National Forest

Stabilized by Grade Control Structure

AnaheimBay-HuntingtonHarbor Watershed

SOUTHPARK PUMP STATION

Barflett Retarding Basin

SITE

Newport Bay Watershed

PRELIMINARY MAP – SUBJECT TO FURTHER REVISION

Sources: Esri, DeLorme, NAVTEQ, TomTom, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand)

Feet
0 12,000 24,000

Sources: Esri, DeLorme, NAVTEQ, TomTom, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand)

TITLE
SUSCEPTIBILITY ANALYIS
SANTA ANA RIVER

JOB
ORANGE COUNTY
WATERSHED
MASTER PLANNING
ORANGE CO. CA

SCALE	1" = 12000'
DESIGNED	TH
DRAWING	TH
CHECKED	BMP
DATE	04/30/10
JOB NO.	9526-E

PACE
Advanced Water Engineering

FIGURE
3

P:\9526E\6-GIS\Mxds\SucepTabilityMaps_20100505\9526E_SantaAnaRiverSuscepItibility_20100430.mxd

Attachment G

HYDROLOGY STUDY

HYDROLOGY STUDY
AND
HYDRAULIC ANALYSIS

405 CABINETS & STONE

15172 GOLDENWEST CIRCLE

WESTMINSTER, CA

Prepared for:

Tin Phan
18315 Mt. Baldy Cir.
Fountain Valley, CA 92708

Prepared by:

ITF & Associates, Inc.
11278 Los Alamitos Blvd., #354
Los Alamitos, CA 90720
p. 800-797-9483
email: info@itf-associates.com

DATE: January 2022

Revised:

Table of Contents

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Section 1- Project Description 1

Section 2- Hydrology Section 2

Section 3- Hydraulic Section 5

Appendix 1. Vicinity Map
Appendix 2. Pre-Development Conditions
Appendix 3. Post-Development Conditions
Appendix 4. Soils Map
Appendix 5. Drainage Plan

Section 1- Project Description

Land Use
The existing and planned land use is industrial.

Topography
Soil Type
As per the Orange County Hydrology Manual the soil is classified as Type B.

Watershed
Bolsa Chica Channel- Frontal Huntington Harbor

Downstream Receiving Waters
Pacific Ocean

Prior to Development
Existing drainage pattern is in southerly direction along existig cross gutter on west side of the project. The stormwater discharges from cross gutter into existing channel at SW corner of the property.

After Development
The stormwater from the new building roof will get to the surface throw the downspout and will sheet flow to the proposed curb and gutter that run along the west and east sides to the south of property. The stormwater from the loading dock will pump to the surface and will sheet flow to the proposed curb & gutter. The curb & gutter will get the stormwater for the proposed proprietary biotreatment MWS.
The stormwater will discharge from the proprietary biotreatment and exist the site to the existing drainage channel running along s'ly property line.

Section 2- Hydrology Section

This section describes the design criteria and methodology applied during hydrologic analysis of the project site. The design criteria and methodology used follow the Orange County Hydrology Manual.

Rational Method Hydrology

Runoff calculations for this study were accomplished using the Rational Method. The Rational Method is a physically-based numerical method where runoff is assumed to be directly proportional to rainfall and area, less losses for infiltration and depression storage. Flows were computed based on the Rational formula:

$$Q = CiA$$

Where ... Q = peak discharge (cfs);
C = runoff coefficient, based on land use and soil type;
i= rainfall intensity (in/hr);
A = watershed area (acre)

The runoff coefficient represents the ratio of rainfall that runs off the watershed versus the portion that infiltrates to the soil or is held in depression storage. The runoff coefficient is dependent on the land use coverage and soil type.

For a typical drainage study, rainfall intensity varies with the watershed time of concentration. The watershed time of concentration at any given point is defined as the time it would theoretically take runoff to travel from the most upstream point in the watershed to a concentration point, as calculated by equations in the Orange County Hydrology Manual.

EXISTING CONDITION

AREA 1

DRAINAGE AREA A1=232,203 s.f.= 5.33 ac., Impervious Area=100%

LENGTH OF INITIAL AREA, L=640'
DIFFERENCE IN ELEVATION BETWEEN ENDS OF INITIAL AREA, H=1.83'

FROM FIGURE D-1, ORANGE COUNTY HYDROLOGY MANUAL
TIME OF CONCENTRATION Tc=19.8

FROM FIGURE B-3 :

INTENSITY I(t)2 =a(t^b)=5.702x(Tc)^(-0.574))=1.03 in/hr.
INTENSITY I(t)10 =a(t^b)=10.209x(Tc)^(-0.573))=1.84 in/hr.
INTENSITY I(t)25=a(t^b)=11.99x(Tc)^(-0.566))=2.21 in/hr.
INTENSITY I(t)100=a(t^b)=15.56x(Tc)^(-0.573))=2.80 in/hr.

C=0.9(Ai+(I-Fp)Ap/I), for I > Fp,
C=0.9Ai, for I < Fp, where
Fp- infiltration rate (0.4-soil group A, 0.3-soil group B, 0.25-soil group C, 0.20-soil group D)
Ai- ratio of impervious area to total area
Ap- ratio of pervious area to total area, Ap=1-Ai

C=0.9

Q=CIA,

Q-runoff in cubic feet per second (cfs)
C-a runoff coefficient representing the ratio of runoff to rainfall
I-the time-averaged rainfall intensity in in/hr corresponding to the time of concentration
A-drainage area (ac).

Qex1(2yr.)=0.9x1.03x5.33=**4.94 cfs**
Qex1(10yr.)=0.9x1.84x5.33=**8.82 cfs**
Qex1(25yr.)=0.9x2.21x5.33=**10.6 cfs**
Qex1(100yr.)=0.9x2.80x5.33=**13.4 cfs**

PROPOSED CONDITION

AREA 1

DRAINAGE AREA A1=103,800 s.f.=2.38 ac, Landscape Area= 15,924 s.f. (6.8%)

LENGTH OF INITIAL AREA, L=655'
DIFFERENCE IN ELEVATION BETWEEN ENDS OF INITIAL AREA, H=2.45'

FROM FIGURE D-1, ORANGE COUNTY HYDROLOGY MANUAL
TIME OF CONCENTRATION Tc=12.0

FROM FIGURE B-3
INTENSITY I(t)2 =a(t^b)=5.702x(Tc)^(-0.574))=1.37 in/hr.
INTENSITY I(t)10 =a(t^b)=10.209x(Tc)^(-0.573))=2.46 in/hr.
INTENSITY I(t)25=a(t^b)=11.99x(Tc)^(-0.566))=2.94 in/hr.
INTENSITY I(t)100=a(t^b)=15.56x(Tc)^(-0.573))=3.73 in/hr.

C=0.9(Ai+(I-Fp)Ap/I), for I > Fp,
C=0.9Ai, for I < Fp, where
Fp- infiltration rate (0.4-soil group A, 0.3-soil group B, 0.25-soil group C, 0.20-soil group D)
Ai- ratio of impervious area to total area, Ap- ratio of pervious area to total area, Ap=1-Ai

C=0.9 (0.932+(3.63-0.25)*0.068/3.63)=0.89

Q1new(2yr.)=0.89x1.37x2.38=**2.90 cfs, Q1new(10yr.)=**0.89x2.46x2.38=**5.21 cfs**
Q1new(25yr.)=0.89x2.94x2.38=**6.22 cfs, Q1new(100yr.)=**0.89x3.73x2.38=**7.90 cfs**

AREA 2

DRAINAGE AREA A1=128,403 s.f.=2.95 ac, Landscape Area= 8,726 s.f. (6.8%)

LENGTH OF INITIAL AREA, L=690'
DIFFERENCE IN ELEVATION BETWEEN ENDS OF INITIAL AREA, H=2.45'

FROM FIGURE D-1, ORANGE COUNTY HYDROLOGY MANUAL
TIME OF CONCENTRATION Tc=12.6

FROM FIGURE B-3

INTENSITY I(t)2 =a(t^b)=5.702x(Tc)^(-0.574))=1.33 in/hr.
INTENSITY I(t)10 =a(t^b)=10.209x(Tc)^(-0.573))=2.38 in/hr.
INTENSITY I(t)25=a(t^b)=11.99x(Tc)^(-0.566))=2.86 in/hr.
INTENSITY I(t)100=a(t^b)=15.56x(Tc)^(-0.573))=3.63 in/hr.

C=0.9 (0.932+(3.63-0.25)*0.068/3.63)=0.89

Q2new(2yr.)=0.89x1.33x2.95=**3.49 cfs, Q2new(10yr.)=**0.89x2.38x2.95=**5.02 cfs**
Q2new(25yr.)=0.89x2.86x2.95=**6.03 cfs, Q2new(100yr.)=**0.89x3.63x2.95=**7.66 cfs**

CONCLUSION

Qexist-total-2yr =4.94 cfs
Qnew-total-2yr= 2.90+3.49=6.39 cfs

The difference between existing and proposed 2yr Q (6.39-4.94=1.45 cfs) to be retained on site. See plan and WQMP for details.

Section 3- Hydraulic Section

1. DRAINAGE PIPE CAPACITY.

FROM KING'S HYDROLOGY BOOK
Q= k*(D^(8/3))*(S^0.5)/n
k-coefficient representing depth of water (for pipe flowing full k=0.463)
n-roughness coefficient (assume n=0.013 for new pipe), S-slope of pipe.

1. 3' wide SWALE.
L=3', hg=0.12'

Per Chezy-Manning formula, the capacity of curb outlet Qout.=1.486/n(A^1.67/P^0.67)S^0.5
Where A-wetted area, P-wetted perimeter, S- slope of outlet, then

A=3x0.12/2=0.18 s.f., P=3.0, S=0.35% and n=0.013

Qgut=1.486/.013(0.18^1.67/3^0.67)*0.0035^0.5=0.18 cfs > Qtr=0.14 cfs

3a. The curb opening 0.5'x2'

Per Chezy-Manning formula, the capacity of curb outlet Qout.=1.486/n(A^1.67/P^0.67)S^0.5
Where A-wetted area, P-wetted perimeter, S- slope of outlet, then

A=2*0.33=0.66 s.f., P=2.66, S=0.0035 and n=0.013

Qco=1.486/.013(0.660^1.67/2.66^0.67)*0.0035^0.5=1.75 cfs

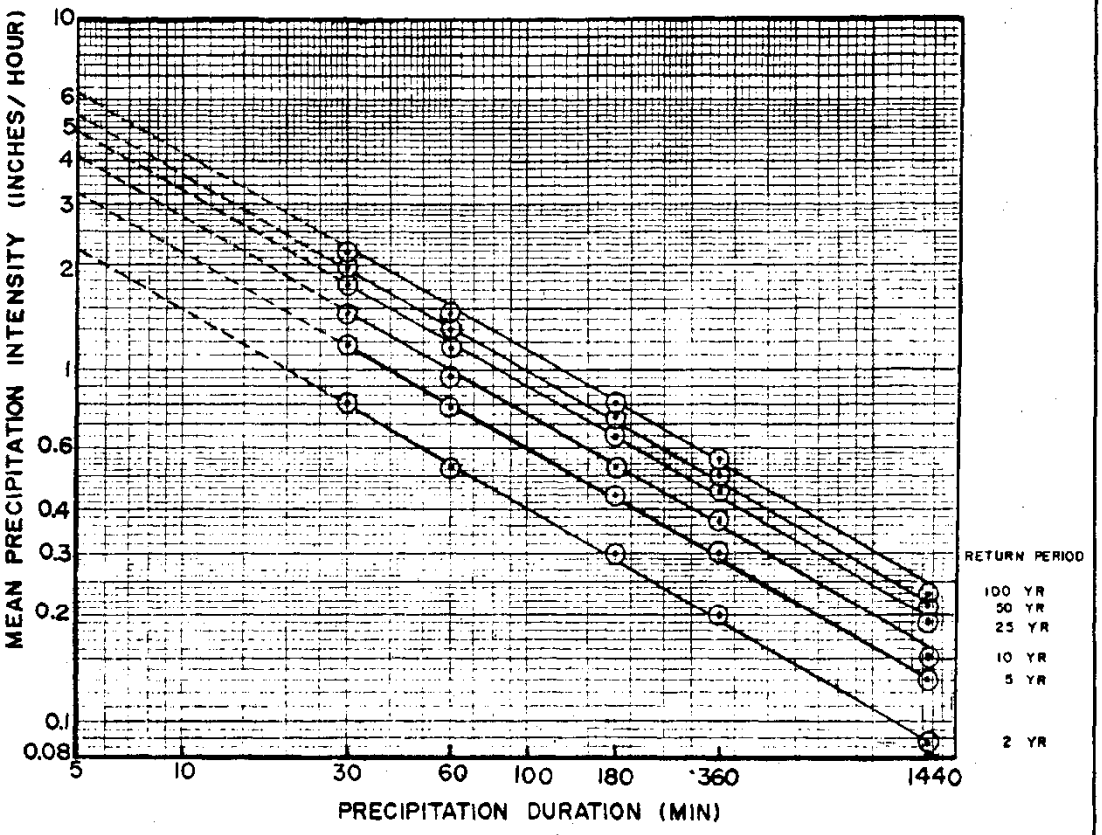
4. Orifice
Q(2yr)=3.73 cfs

Qorf.=CxAx(2gH)^0.5, where C=0.6, g=32.2, H=4', then
A=3.73/(0.6x(2x32.2x4)^0.5)=0.075 s.f.
Then r=(A/3.14)^0.5=0.15=+/-2"

Regression Equations: $I(t) = at^b$

(I= Intensity in inches/hour, t= duration in minutes)

Return Frequency (years)	a	b
2	5.702	-0.574
5	7.870	-0.562
10	10.209	-0.573
25	11.995	-0.566
50	13.521	-0.566
100	15.560	-0.573

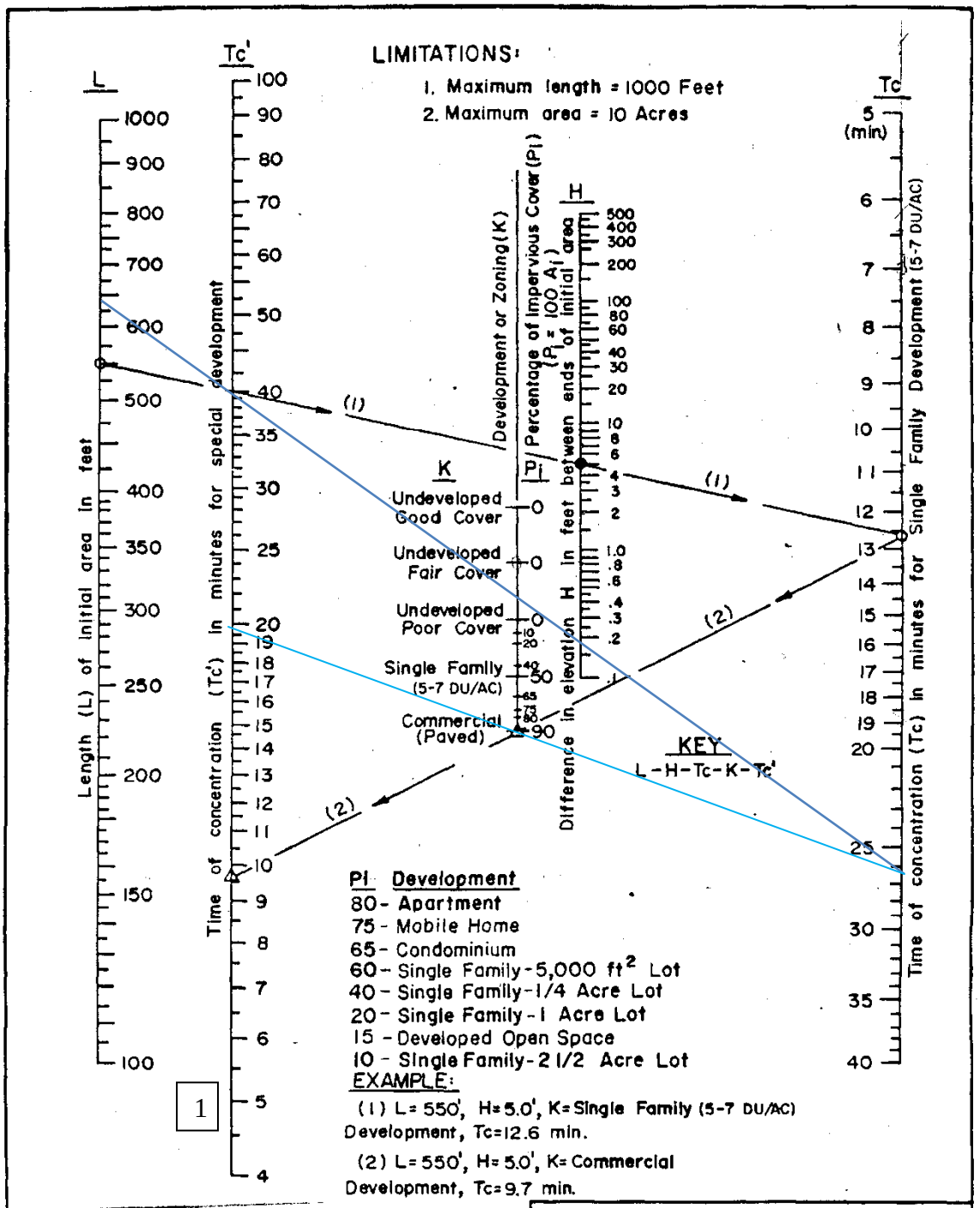


ORANGE COUNTY
HYDROLOGY MANUAL

MEAN PRECIPITATION INTENSITIES FOR NONMOUNTAINOUS AREAS

Figure B-3

PRE-CONSTRUCTION



TIME OF CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA

D-4

Figure D-1

POST-CONSTRUCTION

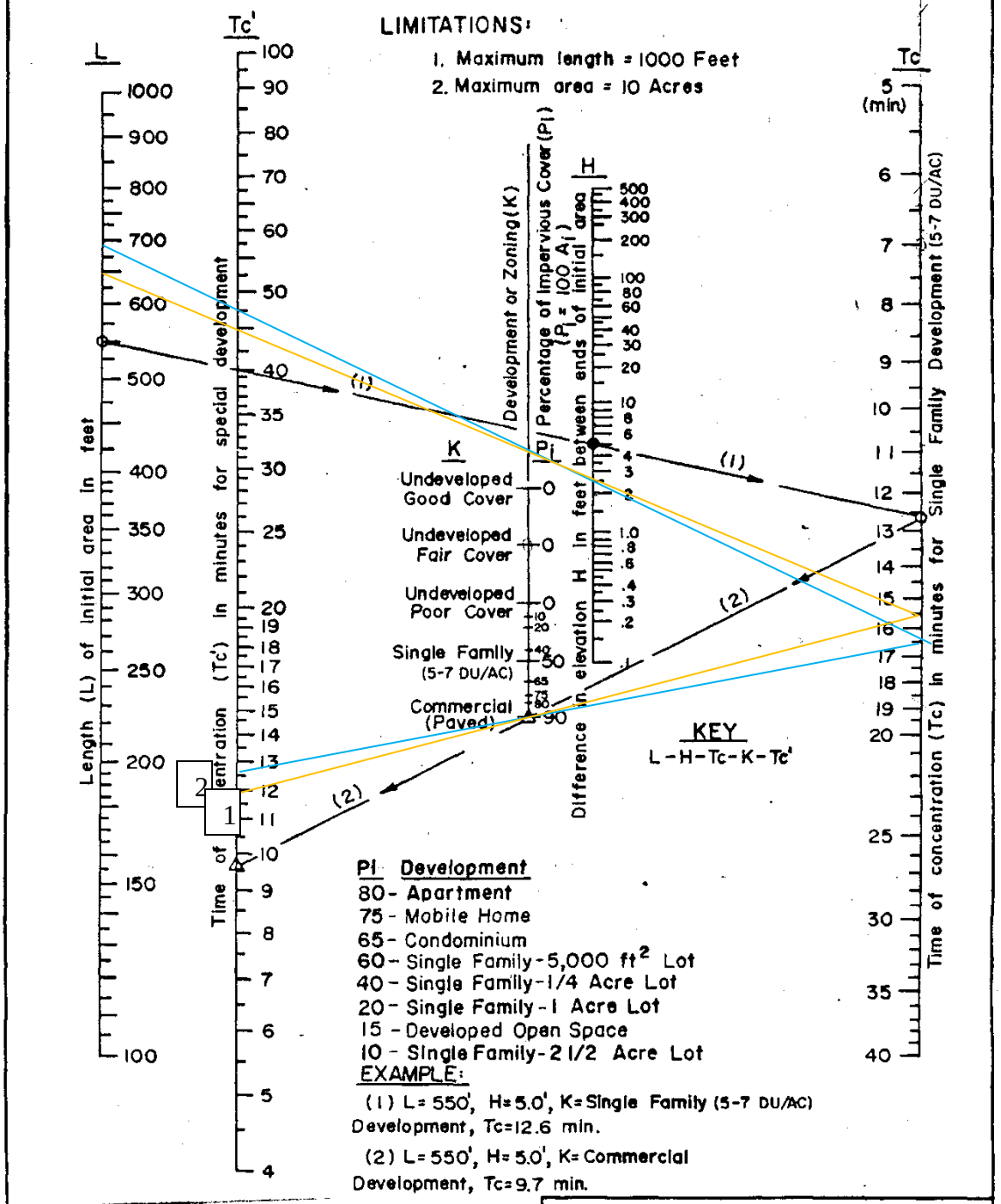
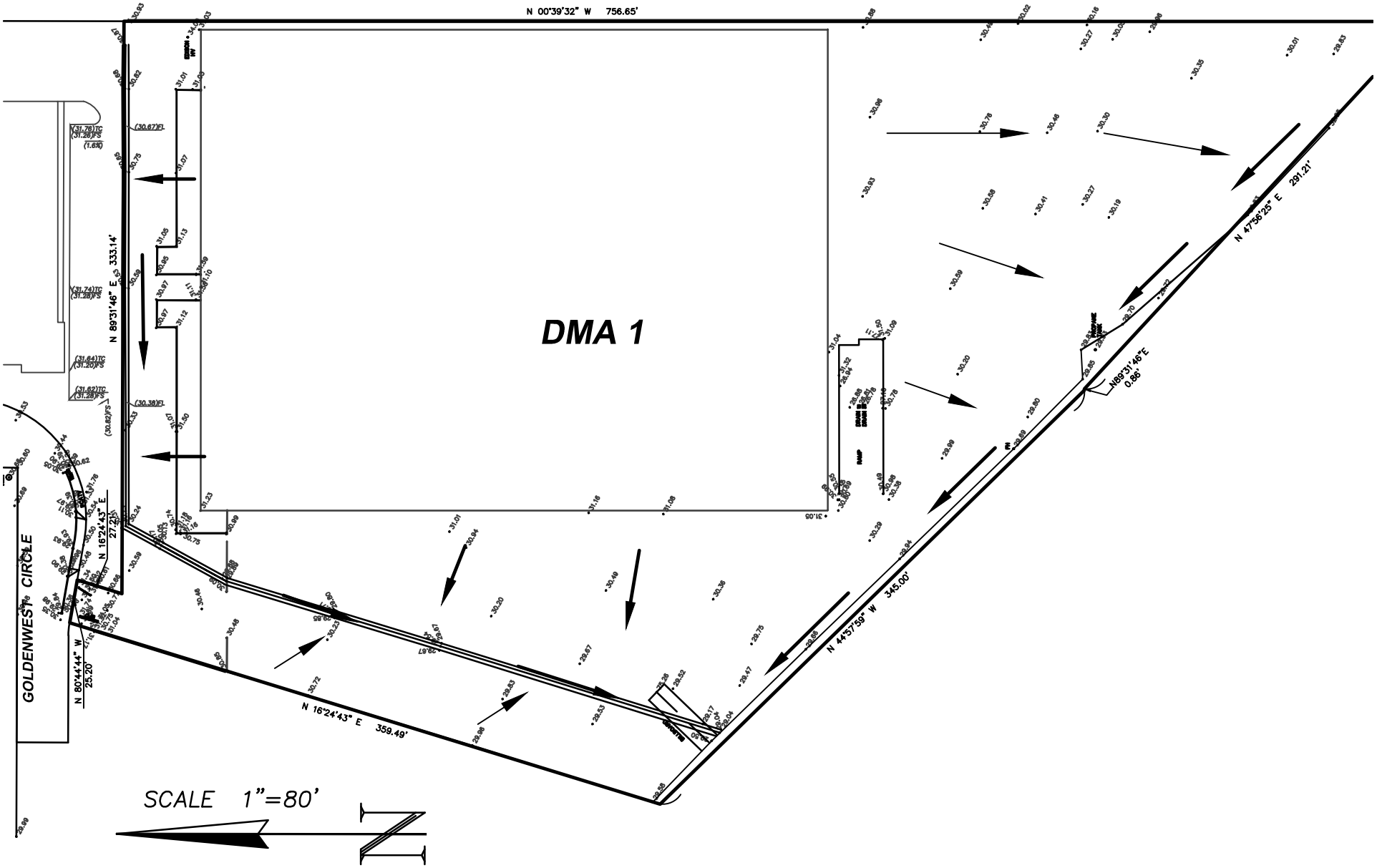
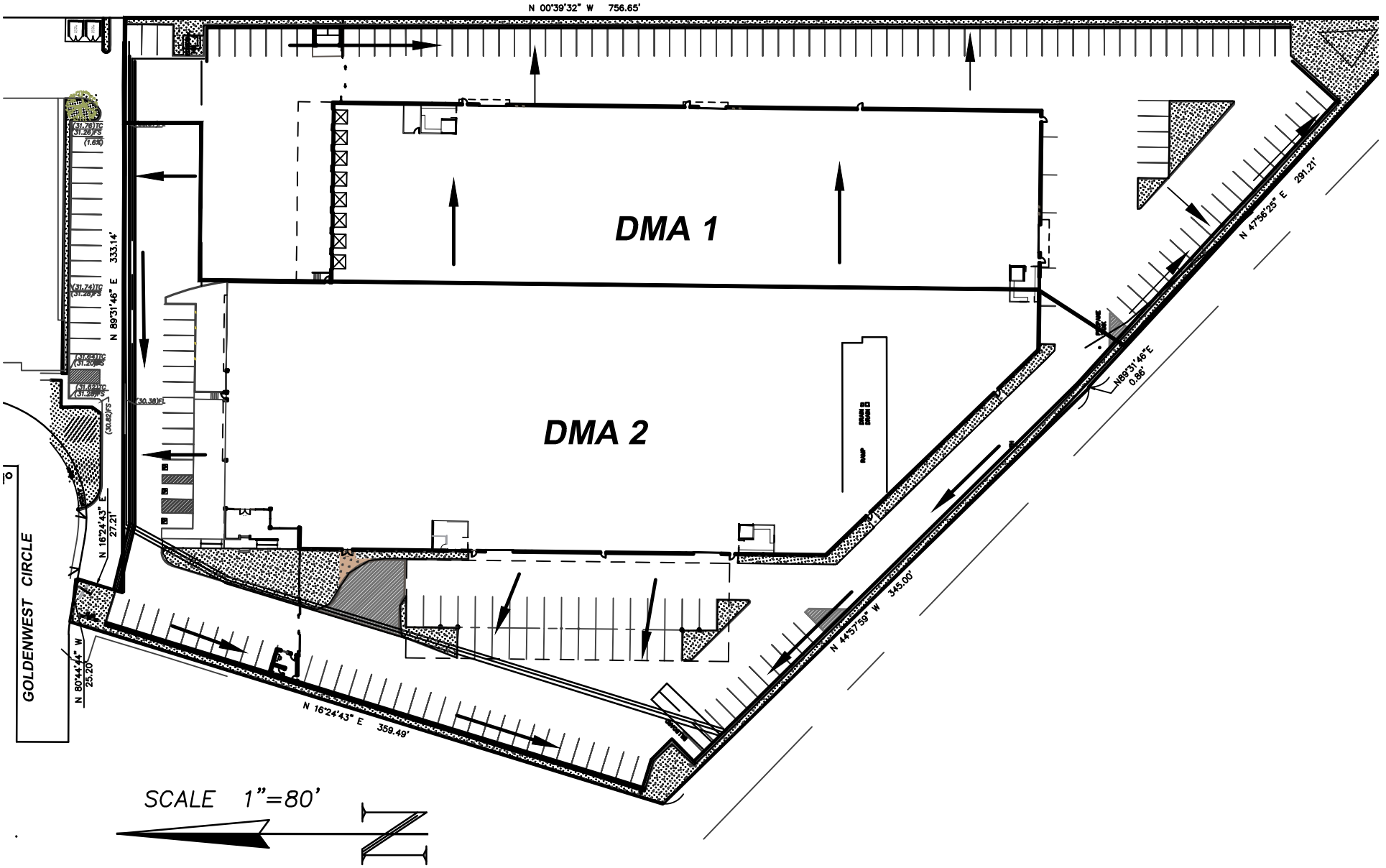


Figure D-1

HYDROLOGY MAP
PRE CONSTRUCTION



HYDROLOGY MAP
POST CONSTRUCTION



Appendix E –
Trip Generation Evaluation Letter

FEHR PEERS

Memorandum

Date: November 4, 2022

To: Francisco Contreras, Cataldo & Associates
Tin Phan, GBOW, LLC

From: Jason D. Pack, P.E.
Logan Aspeita
Raymond Poss

Subject: Westminster Goldenwest Circle Traffic Study

OC22-0926

Fehr & Peers has completed a trip generation assessment for the proposed warehouse (Project) in Westminster, California. The Project trip generation was estimated to assess the need for Level of Service (LOS) and/or Vehicle Miles Traveled (VMT) analyses based on information presented in *City of Westminster Traffic Impact Analysis Preparation Guidelines* (June 2020).

Project Description

The Project site is located at 15172 Goldenwest Circle in the City of Westminster. A 102,043 sq. ft. warehouse exists on the site and provides storage for large tractor-trailer vehicles.

The Project proposes to replace the existing warehouse facility with a new 123,990 sq. ft. warehouse. The Project's main use will be to store furniture, but it will also include 2,910 sq. ft. of office space and a 5,000 sq. ft. show room, which will allow customers to view and purchase the products.

Project Trip Generation

Trip generation estimates for the Project were determined using trip generation rates for the building square footage from *Trip Generation, 11th Edition* (Institute of Transportation Engineers [ITE], 2021). *Trip Generation, 11th Edition* rates were used to estimate daily, AM peak hour, and PM peak hour trips associated with the Project.

ITE trip generation rates for Warehouse (ITE Code 150) were used to estimate Project trips associated with the storage and office spaces. ITE trip generation rates for Furniture Store (ITE

Code 890) were used to estimate Project trips associated with the show room. Trip generation rates for ITE Codes 150 and 890 are provided in **Table 1**. Trip generation estimates for the proposed Project are provided in **Table 2**.

Trip Generation Reductions

Since the Project site is not vacant and had existing daily and AM and PM peak hour trips traveling to and from the site, the net increase of trips associated with the proposed Project was evaluated. ITE trip generation rates for Warehouse (ITE Code 150) were used to estimate the trips associated with the existing tractor-trailer storage facility. Trip generation rates for the existing and proposed uses are provided in **Table 1** and trip generation estimates are provided in **Table 2**.

Trip Generation Estimates

As shown in **Table 2**, the Project is forecast to generate 235 daily trips, including 21 trips (16 inbound/five outbound) during the AM peak hour, and 24 trips (seven inbound/17 outbound) during the PM peak hour. After the existing facility's trip generation reduction is applied, the Project is forecast to generate 61 net new daily trips, including four net new trips (three inbound/one outbound) during the AM peak hour, and six net new trips (two inbound/four outbound) during the PM peak hour.

Table 1: Trip Generation Rates

Land Use	ITE Land Use Code	Quantity	Units[1]	Daily Rate	AM Peak			PM Peak		
					Trip Rate	In %	Out %	Trip Rate	In %	Out %
Warehouse	150	118.99	KSF	1.71	0.17	77%	23%	0.18	28%	72%
Furniture Store	890	5.00	KSF	6.30	0.26	71%	29%	0.52	47%	53%

Notes:
1. KSF = 1000 Sq. Ft.

Source(s): *Trip Generation Manual 11th Edition (Institute of Transportation Engineers, 2021)*

Table 2: Trip Generation Estimates

Land Use	ITE Land Use Code	Quantity	Units[1]	Daily Trips	AM Peak			PM Peak		
					Trips	In	Out	Trips	In	Out
Project Land Uses										
Warehouse	150	118.99	KSF	203	20	15	3	21	6	15
Furniture Store	890	5.00	KSF	32	1	1	0	3	1	2
Project Total				**235**	**21**	**16**	**5**	**24**	**7**	**17**
Existing Land Use										
Warehouse	150	102.043	KSF	174	17	13	4	18	5	13
Net New Project Trips				**61**	**4**	**3**	**1**	**6**	**2**	**4**

Notes:
1. KSF – 1000 Sq. Ft.

Source(s): *Trip Generation Manual 11th Edition (Institute of Transportation Engineers, 2021)*

LOS Analysis Study Criteria

The *City of Westminster Traffic Impact Analysis Preparation Guidelines* sets forth parameters of when a traffic study would be warranted. This is specifically outlined in Chapter 2, "Level of Service Assessment for General Plan Consistency." Per the City's requirements, an LOS assessment would be required if the Project is likely to add 750 (or more) daily trips or 50 (or more) peak hour trips. Based on the trip generation assessment, the Project would not be required to complete a LOS assessment. Please note, the guidelines to reference that the City Traffic Engineer may still require a LOS assessment if there is a component of the Project they are concerned about or if the Project is likely to worsen operations at a nearby intersection of concern and that component would be identified directly by the City.

VMT Screening

According to Chapter 3, "CEQA Assessment VMT Analysis," of the *City of Westminster Traffic Impact Analysis Preparation Guidelines*, a Project may be screened from VMT assessment if it satisfies one of the following screening steps:

1. Transit Priority Area (TPA) Screening
2. Low VMT Area Screening
3. Project Type Screening

The Project satisfies the Step 3: Project Type Screening. Specifically, projects generating less than 110 net daily vehicle trips[1] are assumed to result in a less-than-significant transportation impact related to VMT. Since the project is anticipated to generate less than 110 net new daily trips, no VMT assessment would be required.

Conclusion

This assessment concludes that the Project does not require further LOS and VMT assessments per the standards set in the *City of Westminster Traffic Impact Analysis Preparation Guidelines*. Should the proposed Project conditions change, further analyses should be done to determine if LOS or VMT assessments are required.

[1] This threshold ties directly to the OPR technical advisory and notes that CEQA provides a categorical exemption for existing facilities, including additions to existing structures of up to 10,000 square feet, so long as the project is in an area where public infrastructure is available to allow for maximum planned development and the project is not in an environmentally sensitive area. (CEQA Guidelines, § 15301, subd. (e)(2).) Typical project types for which trip generation increases relatively linearly with building footprint (i.e., general office building, single tenant office building, office park, and business park) generate or attract an additional 110-124 trips per 10,000 square feet. Therefore, absent substantial evidence otherwise, it is reasonable to conclude that the addition of 110 or fewer trips could be considered not to lead to a significant impact.

Appendix F

Mitigation Monitoring & Reporting Program

City of Westminster
ArtiCraft Cabinetry Facility Project
DRAFT Mitigation Monitoring and Reporting Program Summary

No.	Mitigation Measures	Implementation Action	Method of Verification	Timing of Verification	Responsible Person	Verification Date
Aesthetics						
1	Prior to issuance of any building permits, the applicant shall demonstrate to the Planning Department that the lighting system has been designed and directed in such a manner as to minimize the light source and to minimize light spillage and glare to the adjacent properties. Applicant shall provide a lighting plan which identifies light fixtures product types and technical specifications, including photometric information to determine the extent of light spillage of glare which can be anticipated. This information shall be made a part of the building set of plans for the issuance of the building permit.	Condition of Approval	Review Lighting Plan	Prior to Issuance of Building Permit	Planning Dept.	
Air Quality						
2	Exposed surfaces will be watered at least two times per day during grading activities.	Condition of Approval	Field Inspections as necessary	During construction activities	Public Works Dept.	

No.	Mitigation Measures	Implementation Action	Method of Verification	Timing of Verification	Responsible Person	Verification Date
3	During construction activities, the contractor shall ensure that measures are complied with to reduce short-term (construction) air quality impacts associated with the project: a) apply soil stabilizers or moisten inactive disturbed areas (such as covering stock piles with tarps) to meet South Coast Air Quality Management District (SCAQMD) Rule 403 (Fugitive Dust); b)water exposed surfaces as needed to avoid visible dust leaving the construction site (typically two to three times per day); c)cover all stock piles with tarps at the end of each day or as needed; d) minimize in-out traffic from construction zone; e) cover all trucks hauling dirt, sand, or loose material or require all trucks to maintain a least two feet of freeboard; f) sweep streets daily if visible soil material is carried out from the construction site; g) provide water spray during loading and unloading of earthen materials; h) utilize well-tuned off-road construction equipment; i) establish a preference for contractors using Tier 3 or cleaner heavy equipment; and j) enforce 5-minute idling limits for on-road trucks and off-road equipment.	Condition of Approval	Field Inspections as Necessary	During Construction Activities	Public Works Dept.	
Biological Resources						
4	If tree and shrub clearing is scheduled to begin during the nesting season (February 1 to September 15), a qualified biologist shall be retained to survey the trees to determine the presence of any bird nests on the trees prior to their removal. If nests are identified, removal of the trees should not proceed until after the nesting season concludes on September 15.	Condition of Approval	Plan Check	Prior to Clearing Activities	Public Works Dept.	

No.	Mitigation Measures	Implementation Action	Method of Verification	Timing of Verification	Responsible Person	Verification Date
Hazards and Hazardous Materials						
5	During construction of the Project the applicant shall ensure that grading and building plans include the following measures and that the measures shall be followed by the construction contractor and crew: 1) the storage of hazardous materials, chemicals, fuels, and oils and fueling of construction equipment shall be a minimum of 45 meters (150 feet) from any drainage, water supply, or other water features; 2) hazardous materials stored on-site shall be stored in a neat, orderly manner in appropriate containers and, if possible, under a roof or other enclosure; 3) whenever possible, all of a product shall be used up before disposal of its container; 4) if surplus product must be disposed of, the manufacturer's or the local and state recommended methods for disposal shall be followed; 5) spills shall be contained and cleaned up immediately after discovery. Manufacturer's methods for spill cleanup of a material shall be followed as described on the Material Safety Data Sheets (MSDS) for each product.	Condition of Approval	Plan Check & Site inspection	During project construction.	Public Works Dept.	
Hydrology and Water Quality						
6	Prior to construction activities, a Water Quality Management Plan (WQMP) will be prepared pursuant to the requirements of the Orange County DAMP and the State Regional Water Quality Control Board.	Condition of Approval	Field Inspections as necessary	During construction activities	Public Works Dept.	
Noise						
7	The City and the general contractor shall be responsible for limiting construction activities to 7:00 a.m. to 8:00 p.m. Monday through Saturday. No noise-generating construction activities shall occur on Sundays and holidays.	Condition of Approval	Field Inspections as necessary	During construction activities	Public Works Dept.	
Public Services						
8	Prior to the start of building construction activities, the City and the general contractor shall submit Project plans for review and approval by the Fire Chief. The plans shall demonstrate that the Project meets the requirement of the OCFA, Uniform Building Code ((UBC) and Titles 19 and 24 of the California Administrative Code.	Condition of Approval	Field Inspections as necessary		During construction activities	Public Works Dept.

No.	Mitigation Measures	Implementation Action	Method of Verification	Timing of Verification	Responsible Person	Verification Date
Tribal Cultural Resources						
9	During construction activities, if archaeological and/or paleontological resources are encountered, the contractor shall be responsible for immediate notification and securing of the site immediately. A qualified archaeologist and/or paleontologist approved by the City shall be retained by the property owner to establish in cooperation with the project developer and the City, procedures for temporarily halting or redirecting work to permit sampling, identification, and evaluation of the cultural resource find. Discovered cultural resources shall be offered to the City of Westminster or its designee on a first-refusal basis.	Condition of Approval	Field Inspections as necessary	During construction activities	Public Works Dept.	